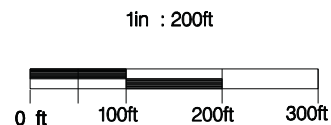


LEGEND

⊕RXX - RECEIVER SITE
 ⊕LT - LONGTERM MEASUREMENT
 ⊕ST - SHORTTERM MEASUREMENT
 ⊕CAL - CALIBRATION SITE

--- EXISTING WALL
 --- SOUNDWALL
 --- EXISTING SOUNDWALL
 --- REPLACEMENT IN KIND SOUNDWALL

SFR - SINGLE FAMILY RESIDENCE
 MFR - MULTI-FAMILY RESIDENCE
 COMM - COMMERCIAL
 b - BENEFITED RESIDENCE

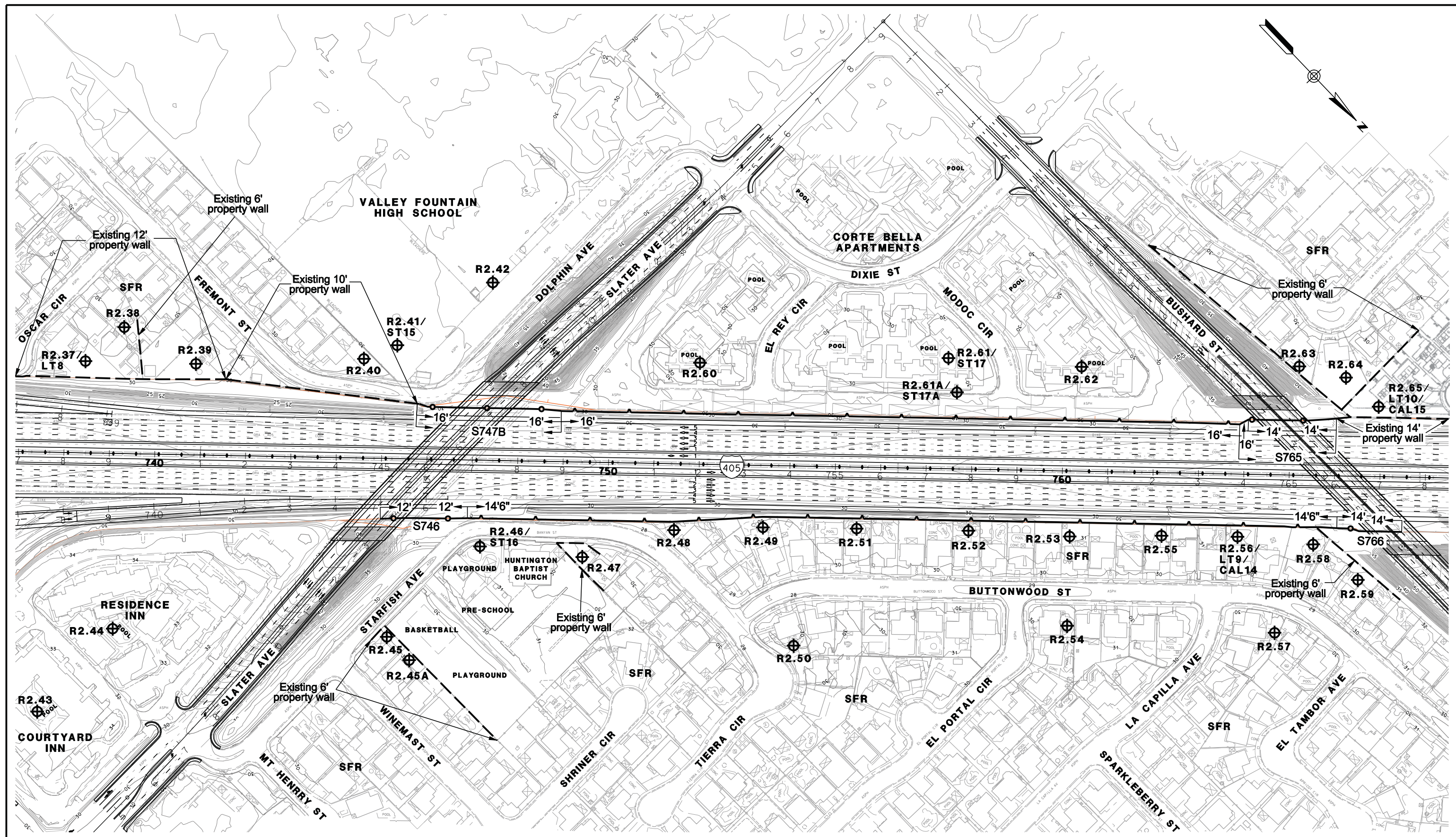


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**I-405 WIDENING PA/ED PROJECT
 NADR RECOMMENDED BARRIER
 HEIGHTS & LOCATIONS ALT1**

FEBRUARY 25, 2011

FIGURE 8



LEGEND

⊕RXX - RECEIVER SITE
 ⊕LT - LONGTERM MEASUREMENT
 ⊕ST - SHORTTERM MEASUREMENT
 ⊕CAL - CALIBRATION SITE

--- EXISTING WALL
 --- SOUNDWALL
 --- EXISTING SOUNDWALL
 --- REPLACEMENT IN KIND SOUNDWALL

SFR - SINGLE FAMILY RESIDENCE
 MFR - MULTI-FAMILY RESIDENCE
 COMM - COMMERCIAL

1in : 200ft

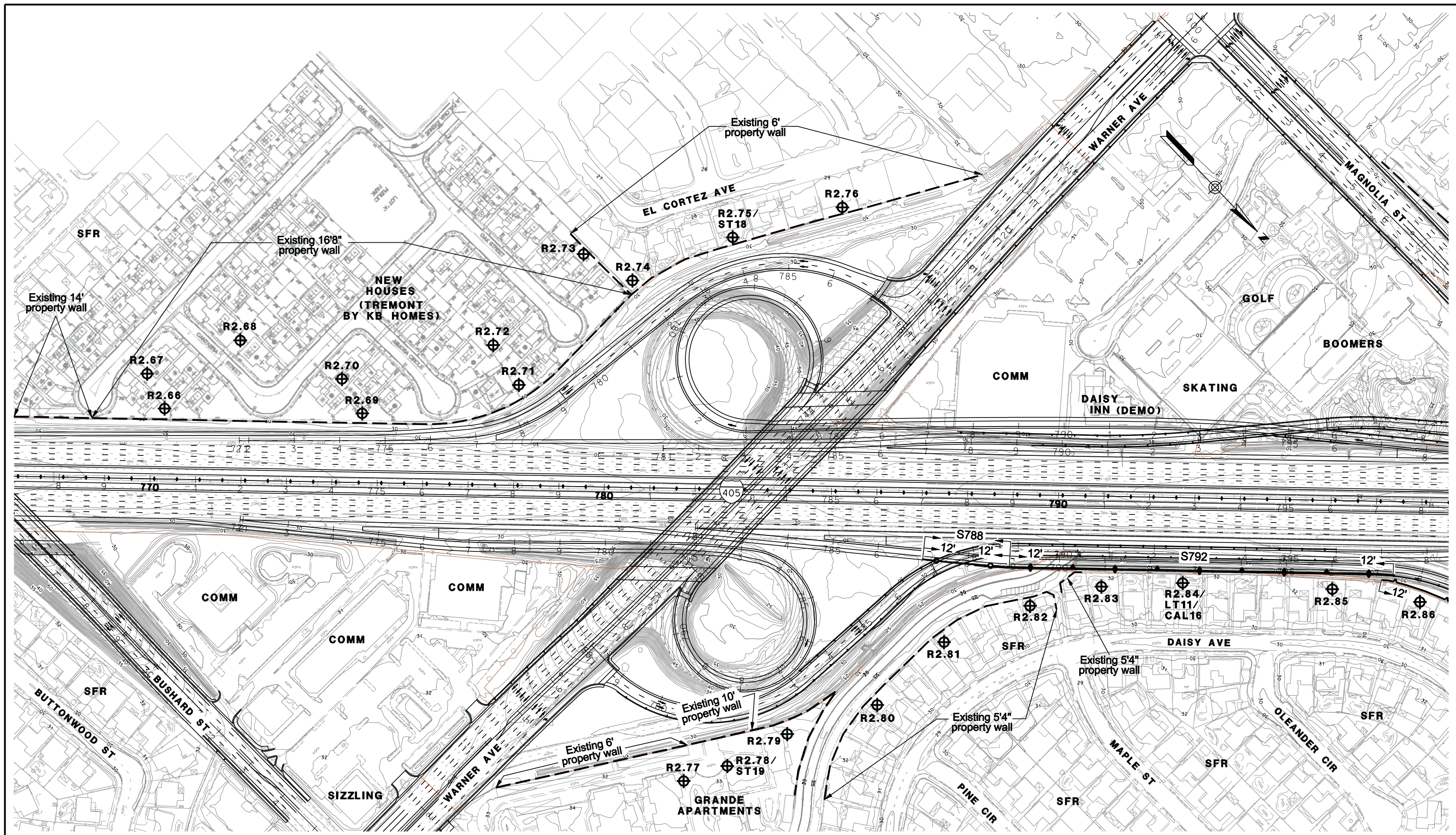
0 ft 100ft 200ft 300ft

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 NADR RECOMMENDED BARRIER
 HEIGHTS & LOCATIONS ALT1**

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FIGURE 9



LEGEND

⊕RX - RECEIVER SITE
 ⊕LT - LONGTERM MEASUREMENT
 ⊕ST - SHORTTERM MEASUREMENT
 ⊕CAL - CALIBRATION SITE

--- EXISTING WALL
 --- SOUNDWALL
 --- EXISTING SOUNDWALL
 --- REPLACEMENT IN KIND SOUNDWALL

SFR - SINGLE FAMILY RESIDENCE
 MFR - MULTI-FAMILY RESIDENCE
 COMM - COMMERCIAL
 b - BENEFITED RESIDENCE

1in : 200ft

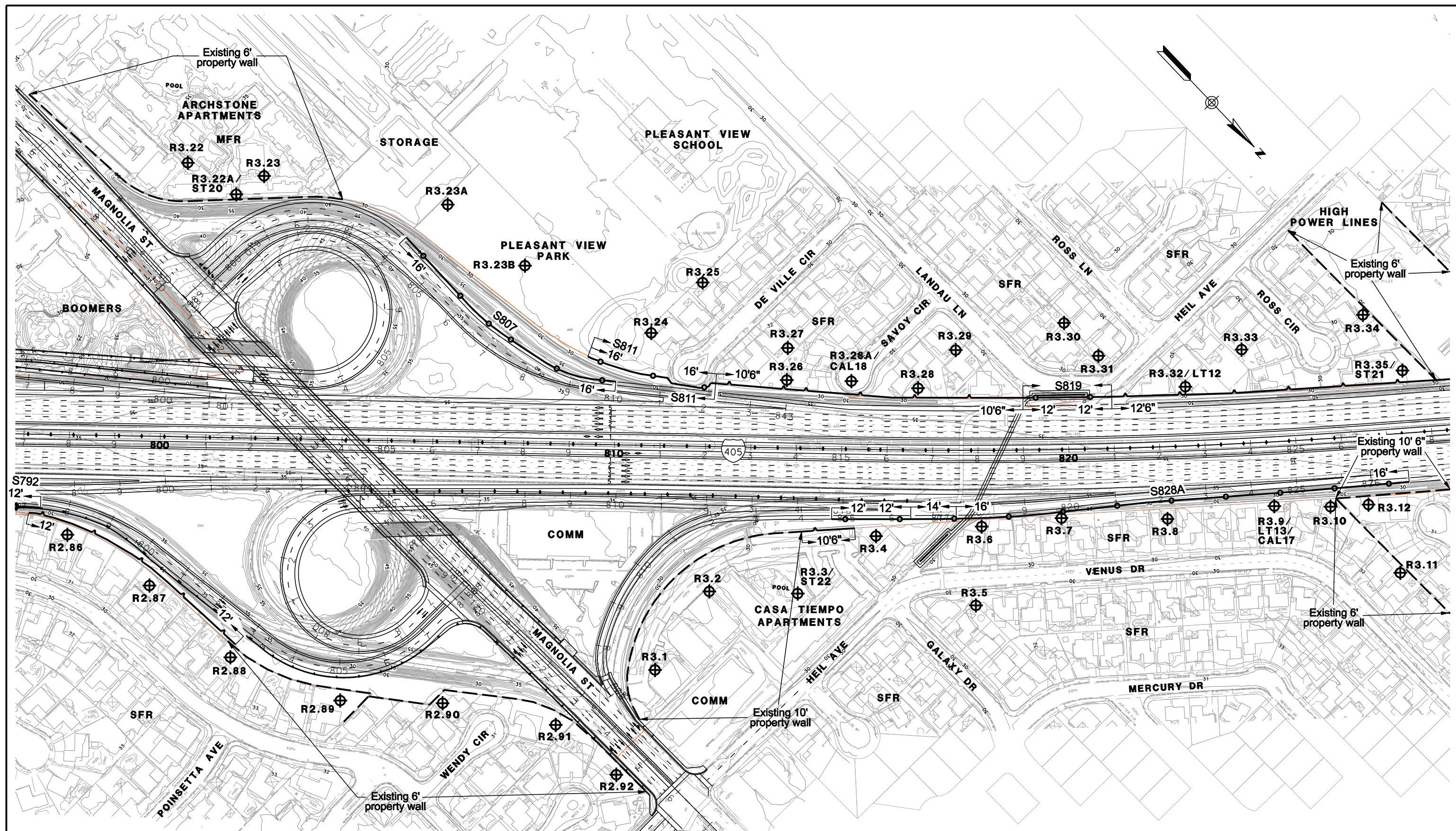
0 ft 100ft 200ft 300ft

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 NADR RECOMMENDED BARRIER
 HEIGHTS & LOCATIONS ALT1**

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FIGURE 10



LEGEND

⊕ RXX - RECEIVER SITE
 ⊕ LT - LONGTERM MEASUREMENT
 ⊕ ST - SHORTTERM MEASUREMENT
 ⊕ CAL - CALIBRATION SITE

--- EXISTING WALL
 --- SOUNDWALL
 --- EXISTING SOUNDWALL
 --- REPLACEMENT IN KIND SOUNDWALL

SFR - SINGLE FAMILY RESIDENCE
 MFR - MULTI-FAMILY RESIDENCE
 COMM - COMMERCIAL
 b - BENEFITED RESIDENCE

1in : 200ft

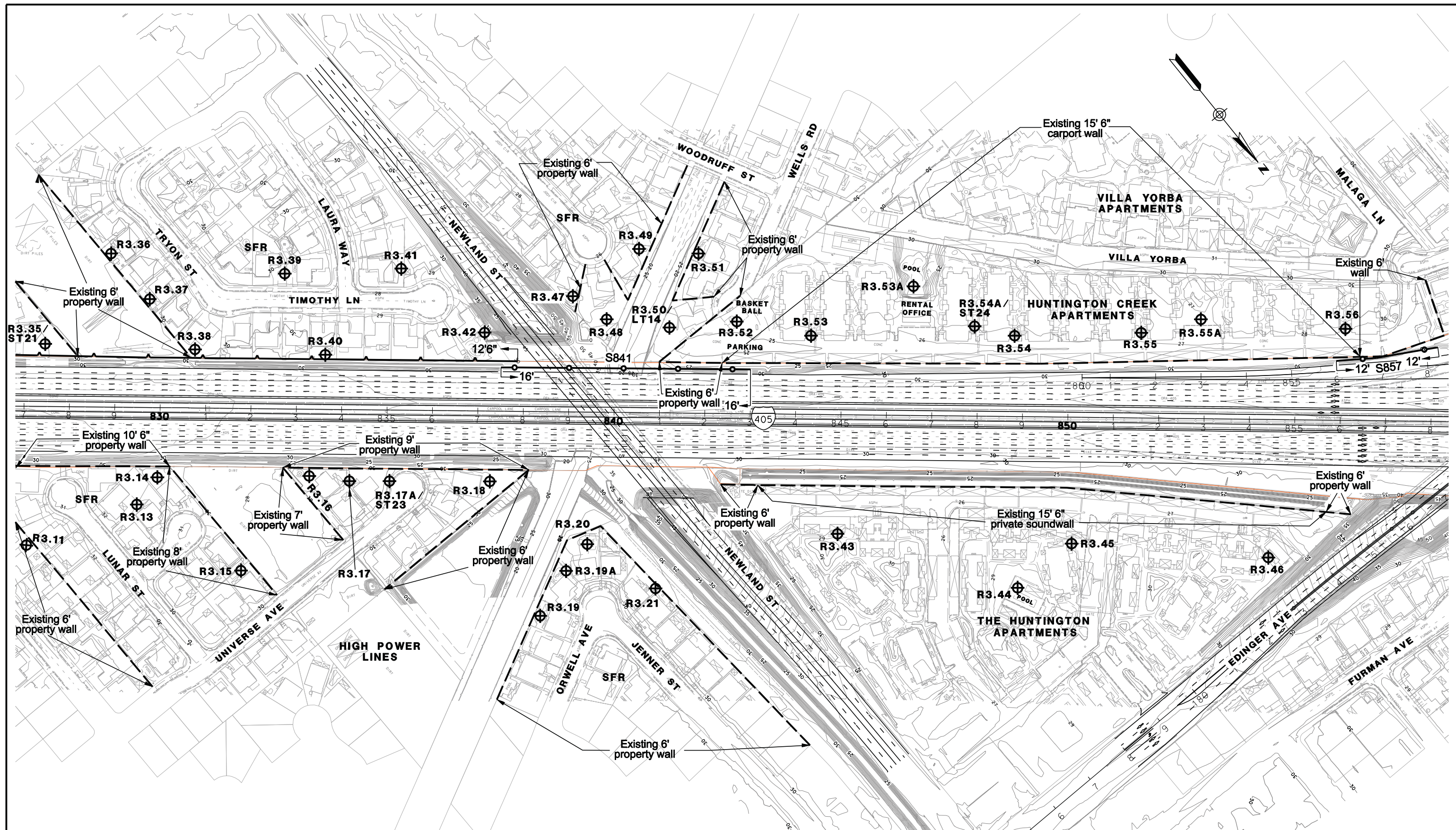
0 ft 100ft 200ft 300ft

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 NADR RECOMMENDED BARRIER
 HEIGHTS & LOCATIONS ALT1**

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FIGURE 11



LEGEND

⊕ RXX - RECEIVER SITE

⊕ LT - LONGTERM MEASUREMENT

⊕ ST - SHORTTERM MEASUREMENT

⊕ CAL - CALIBRATION SITE

--- EXISTING WALL

--- SOUNDWALL

--- EXISTING SOUNDWALL

--- REPLACEMENT IN KIND SOUNDWALL

SFR - SINGLE FAMILY RESIDENCE

MFR - MULTI-FAMILY RESIDENCE

COMM - COMMERCIAL

b - BENEFITED RESIDENCE

1in : 200ft

0 ft 100ft 200ft 300ft

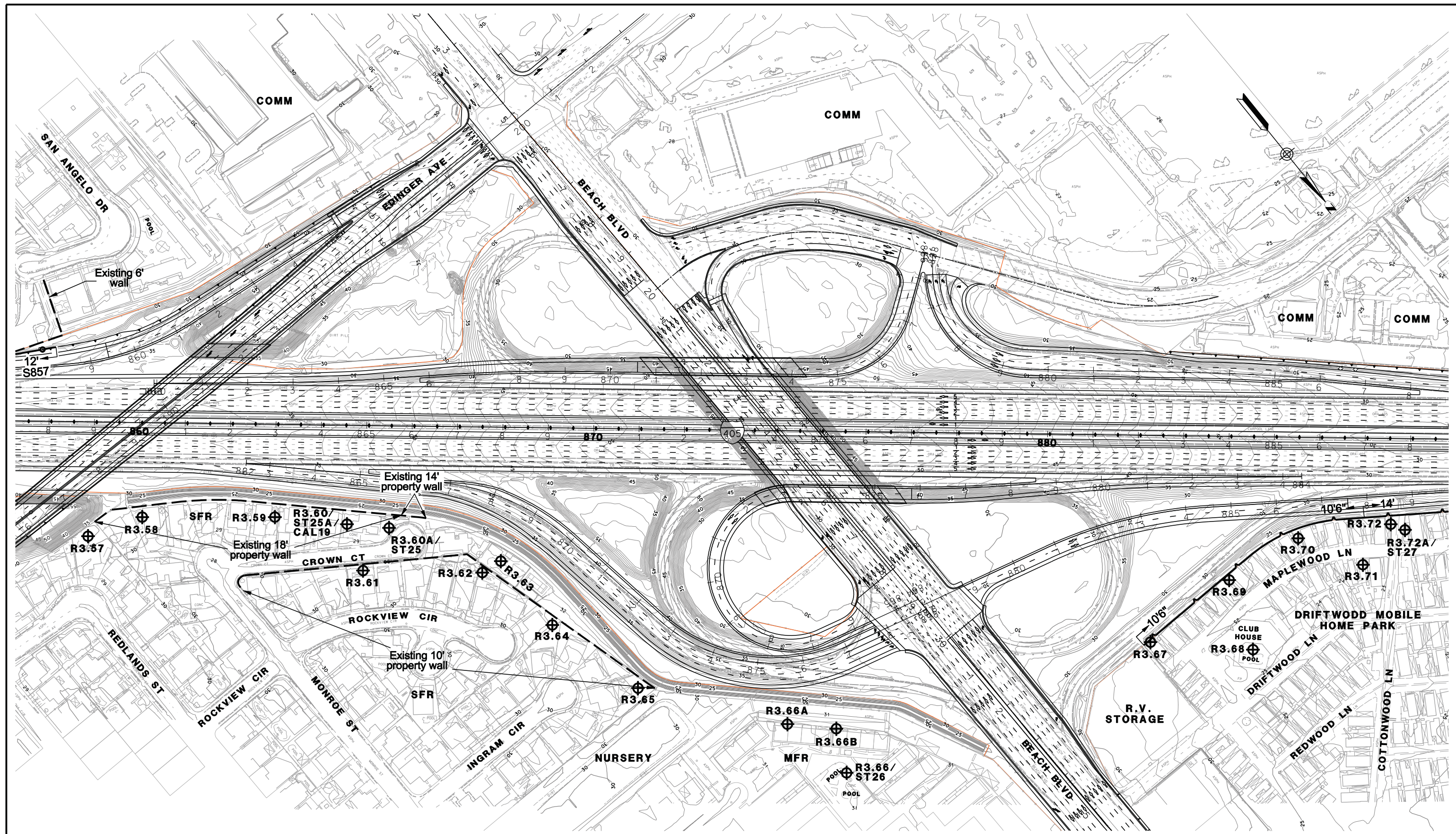
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NADR RECOMMENDED BARRIER
HEIGHTS & LOCATIONS ALT1**

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FIGURE 12



LEGEND

⊕RX - RECEIVER SITE

⊕LT - LONGTERM MEASUREMENT

⊕ST - SHORTTERM MEASUREMENT

⊕CAL - CALIBRATION SITE

--- EXISTING WALL

--- SOUNDWALL

--- EXISTING SOUNDWALL

--- REPLACEMENT IN KIND SOUNDWALL

SFR - SINGLE FAMILY RESIDENCE

MFR - MULTI-FAMILY RESIDENCE

COMM - COMMERCIAL

b - BENEFITED RESIDENCE

1in : 200ft

0 ft 100ft 200ft 300ft

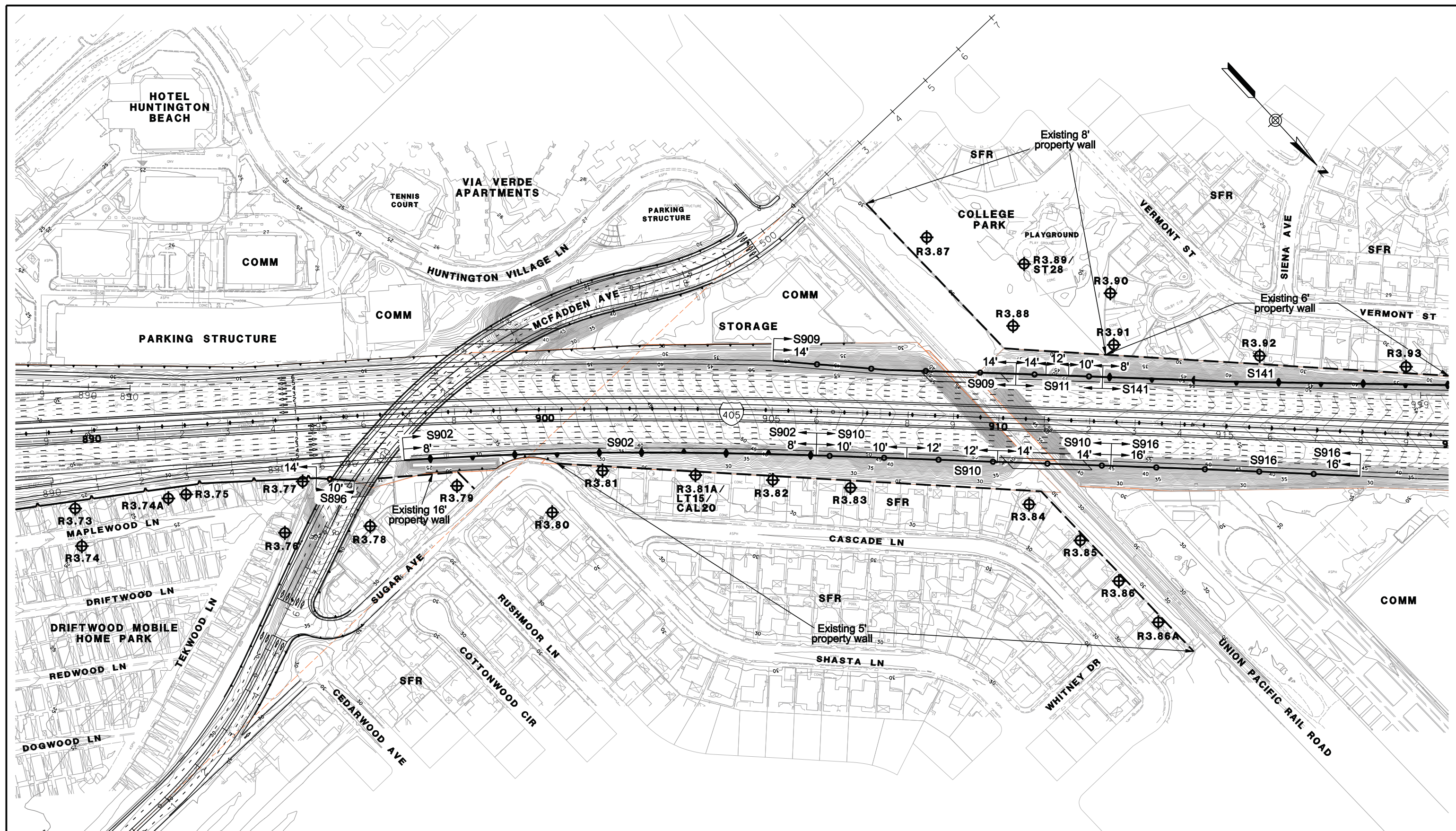
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**I-405 WIDENING PA/ED PROJECT
NADR RECOMMENDED BARRIER
HEIGHTS & LOCATIONS ALT1**

FEBRUARY 25, 2011

FIGURE 13



LEGEND

⊕RXX - RECEIVER SITE
 ⊕LT - LONGTERM MEASUREMENT
 ⊕ST - SHORTTERM MEASUREMENT
 ⊕CAL - CALIBRATION SITE

--- EXISTING WALL
 --- SOUNDWALL
 --- EXISTING SOUNDWALL
 --- REPLACEMENT IN KIND SOUNDWALL

SFR - SINGLE FAMILY RESIDENCE
 MFR - MULTI-FAMILY RESIDENCE
 COMM - COMMERCIAL
 b - BENEFITED RESIDENCE

1in : 200ft

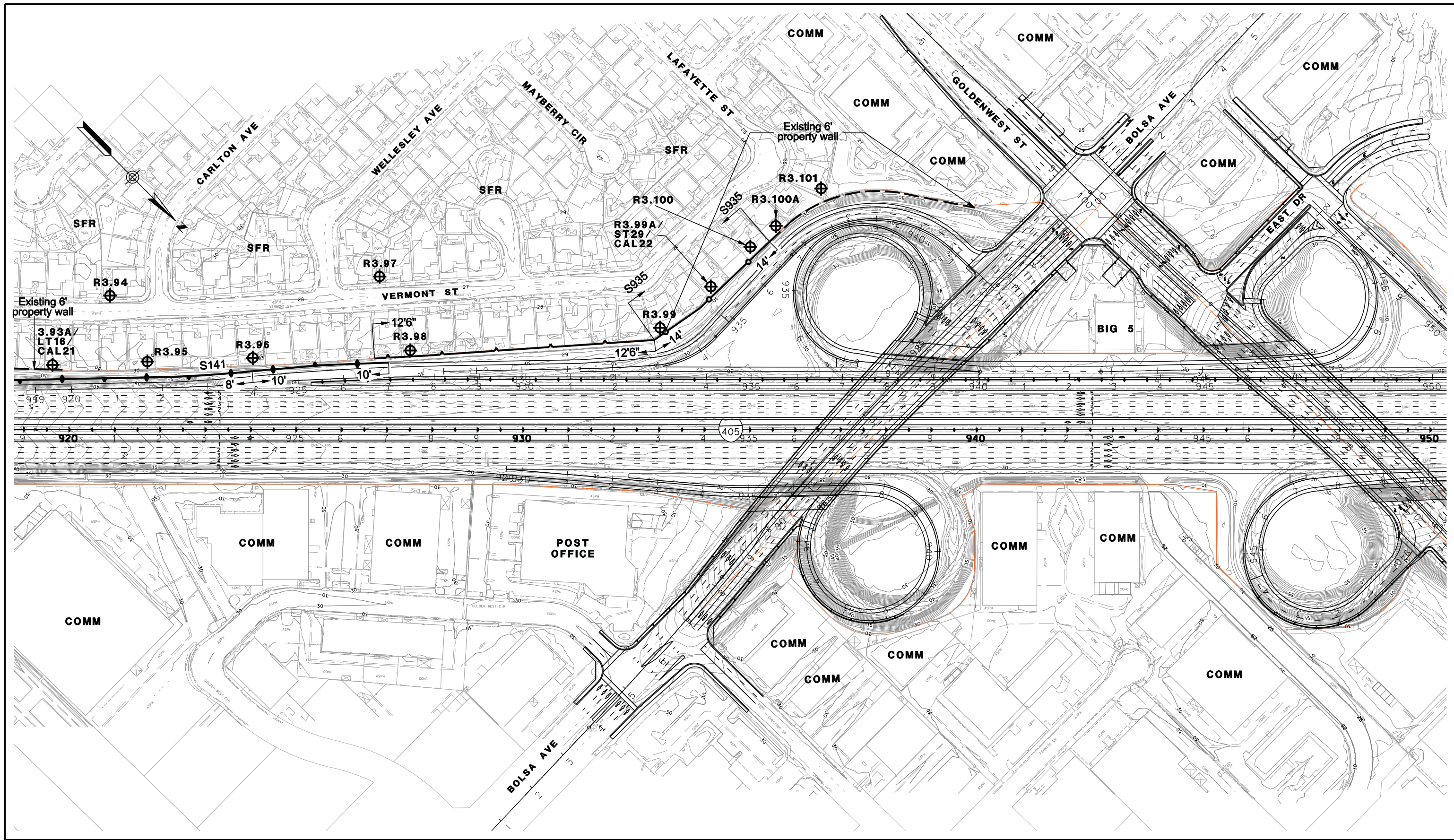
0 ft 100ft 200ft 300ft

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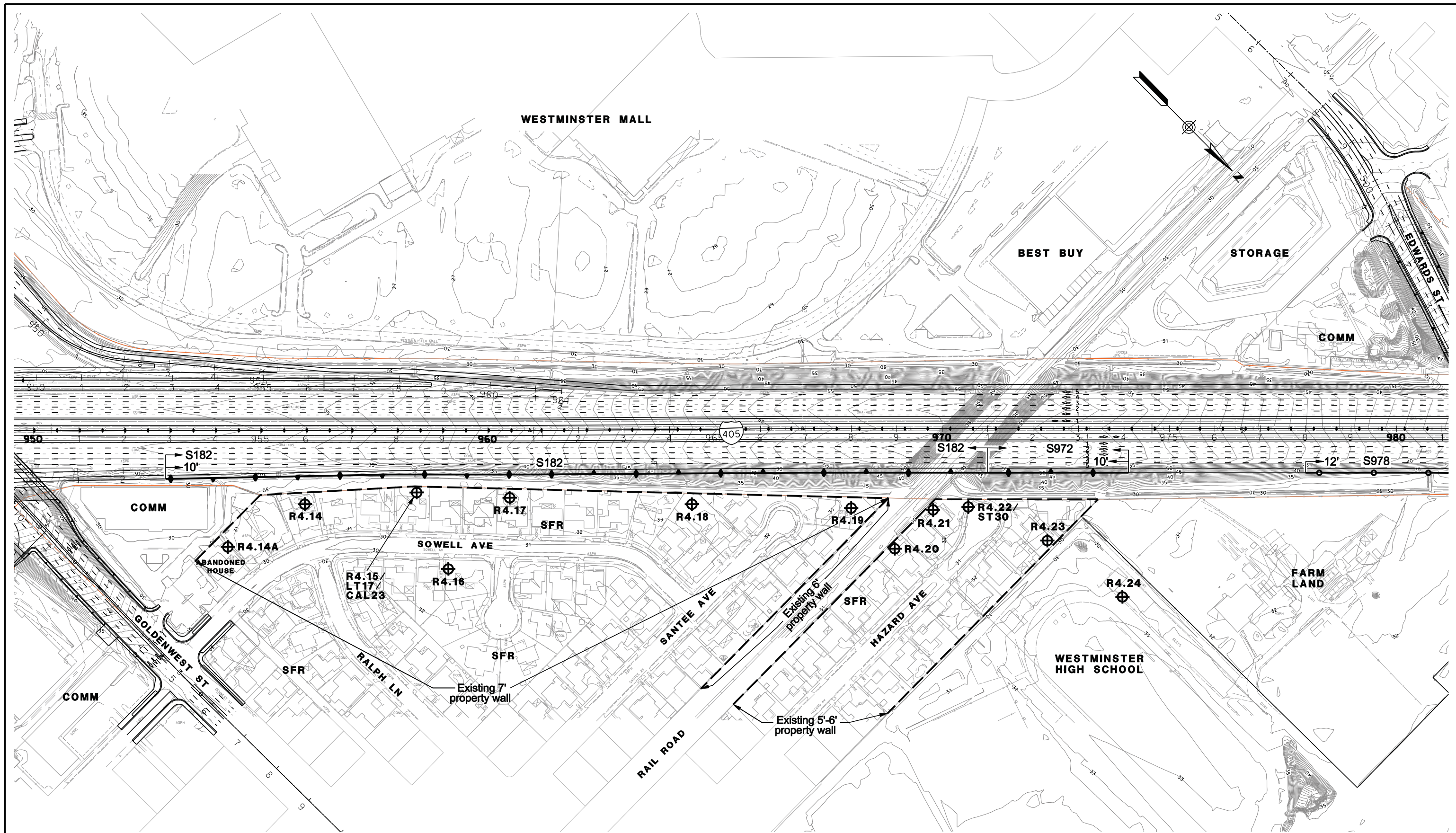
**I-405 WIDENING PA/ED PROJECT
 NADR RECOMMENDED BARRIER
 HEIGHTS & LOCATIONS ALT1**

FEBRUARY 25, 2011

FIGURE 14



LEGEND ⊕ RXX - RECEIVER SITE ⊕ LT - LONGTERM MEASUREMENT ⊕ ST - SHORTTERM MEASUREMENT ⊕ CAL - CALIBRATION SITE	--- EXISTING WALL ○---○ SOUNDWALL --- EXISTING SOUNDWALL ◆---◆ REPLACEMENT IN KIND SOUNDWALL	SFR - SINGLE FAMILY RESIDENCE MFR - MULTI-FAMILY RESIDENCE COMM - COMMERCIAL b - BENEFITED RESIDENCE	1in : 200ft 0 ft 100ft 200ft 300ft	PARSONS 100 WEST WALNUT ST. PASADENA, CA 91124 (626) 440-6100	I-405 WIDENING PA/ED PROJECT NADR RECOMMENDED BARRIER HEIGHTS & LOCATIONS ALT1 FEBRUARY 25, 2011 FIGURE 15
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LEGEND

- ⊕RXX - RECEIVER SITE
- ⊕LT - LONGTERM MEASUREMENT
- ⊕ST - SHORTTERM MEASUREMENT
- ⊕CAL - CALIBRATION SITE

- EXISTING WALL
- SOUNDWALL
- ▲— EXISTING SOUNDWALL
- ◆— REPLACEMENT IN KIND SOUNDWALL

- SFR - SINGLE FAMILY RESIDENCE
- MFR - MULTI-FAMILY RESIDENCE
- COMM - COMMERCIAL
- b - BENEFITED RESIDENCE

1in : 200ft



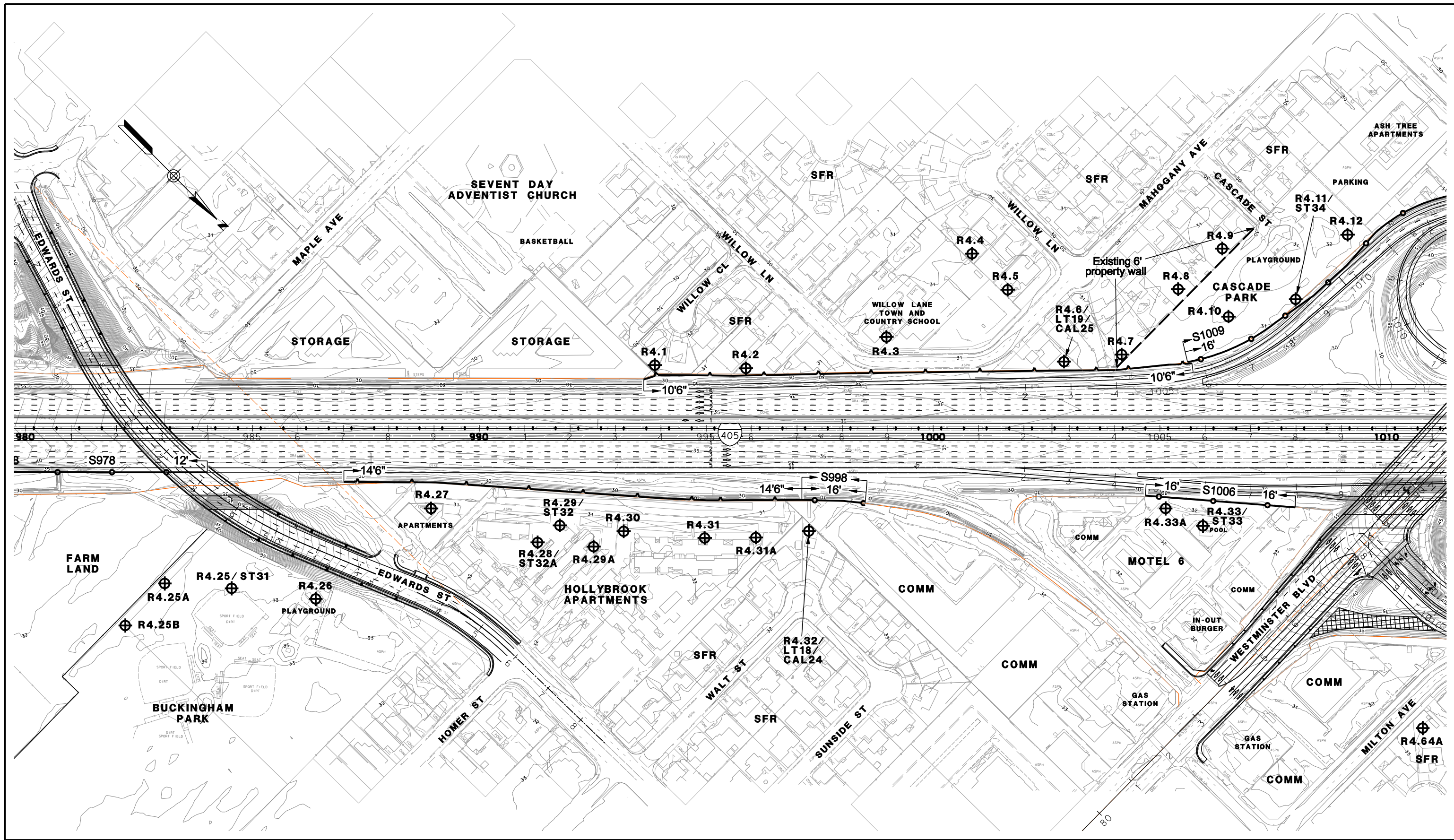
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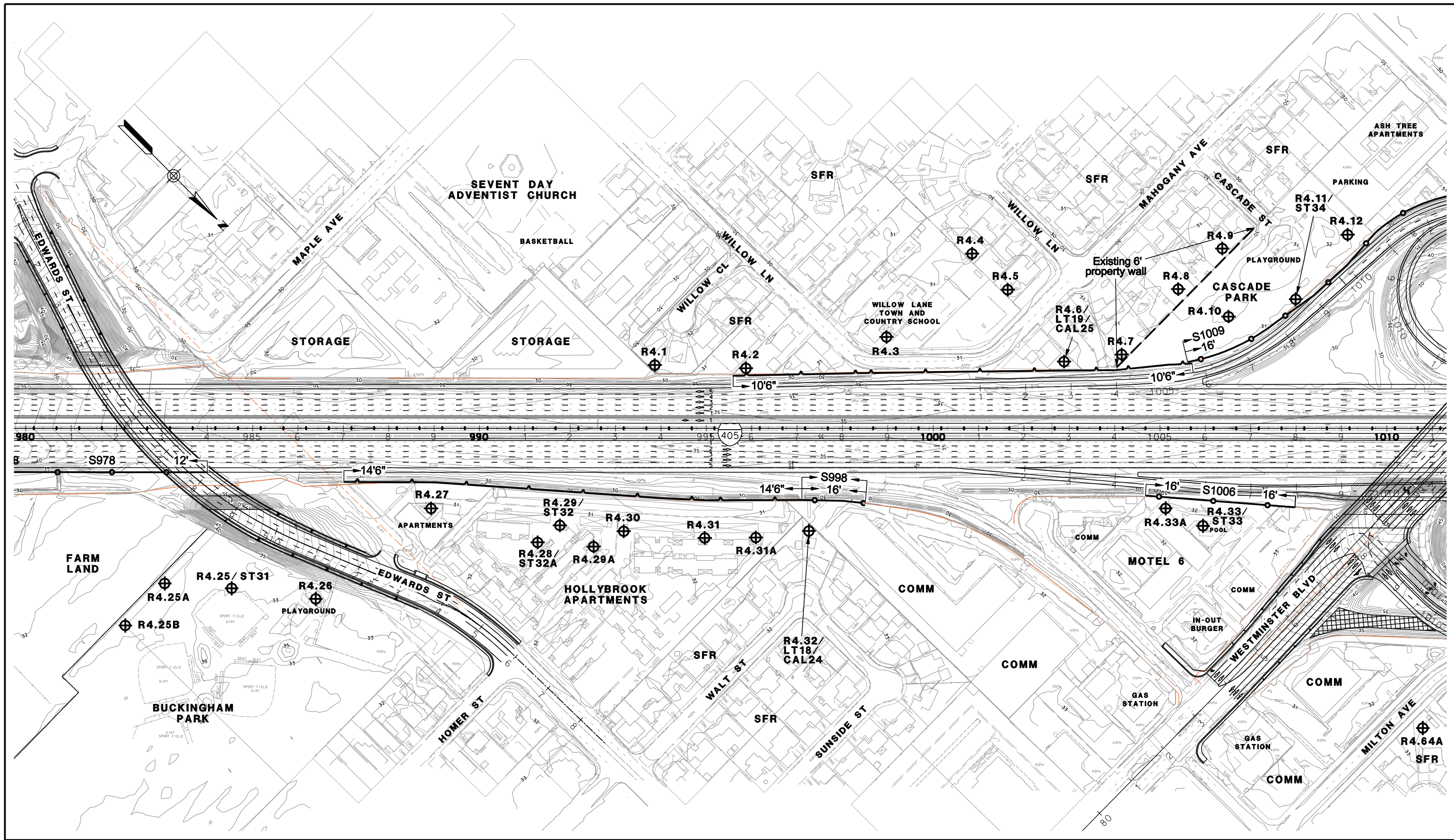
**I-405 WIDENING PA/ED PROJECT
NADR RECOMMENDED BARRIER
HEIGHTS & LOCATIONS ALT1**

AUGUST 16, 2011

FIGURE 16



LEGEND ⊕ RXX - RECEIVER SITE ⊕ LT - LONGTERM MEASUREMENT ⊕ ST - SHORTTERM MEASUREMENT ⊕ CAL - CALIBRATION SITE		--- EXISTING WALL --- SOUNDWALL --- EXISTING SOUNDWALL --- REPLACEMENT IN KIND SOUNDWALL		SFR - SINGLE FAMILY RESIDENCE MFR - MULTI-FAMILY RESIDENCE COMM - COMMERCIAL		PARSONS 100 WEST WALNUT ST. PASADENA, CA 91124 (626) 440-6100	I-405 WIDENING PA/ED PROJECT NADR RECOMMENDED BARRIER HEIGHTS & LOCATIONS ALT1	
				1in : 200ft 0 ft 100ft 200ft 300ft			AUGUST 26, 2011 FIGURE 17	



LEGEND

⊕ RXX - RECEIVER SITE

⊕ LT - LONGTERM MEASUREMENT

⊕ ST - SHORTTERM MEASUREMENT

⊕ CAL - CALIBRATION SITE

--- EXISTING WALL

--- SOUNDWALL

--- EXISTING SOUNDWALL

--- REPLACEMENT IN KIND SOUNDWALL

SFR - SINGLE FAMILY RESIDENCE

MFR - MULTI-FAMILY RESIDENCE

COMM - COMMERCIAL

b - BENEFITED RESIDENCE

1in : 200ft

0 ft 100ft 200ft 300ft

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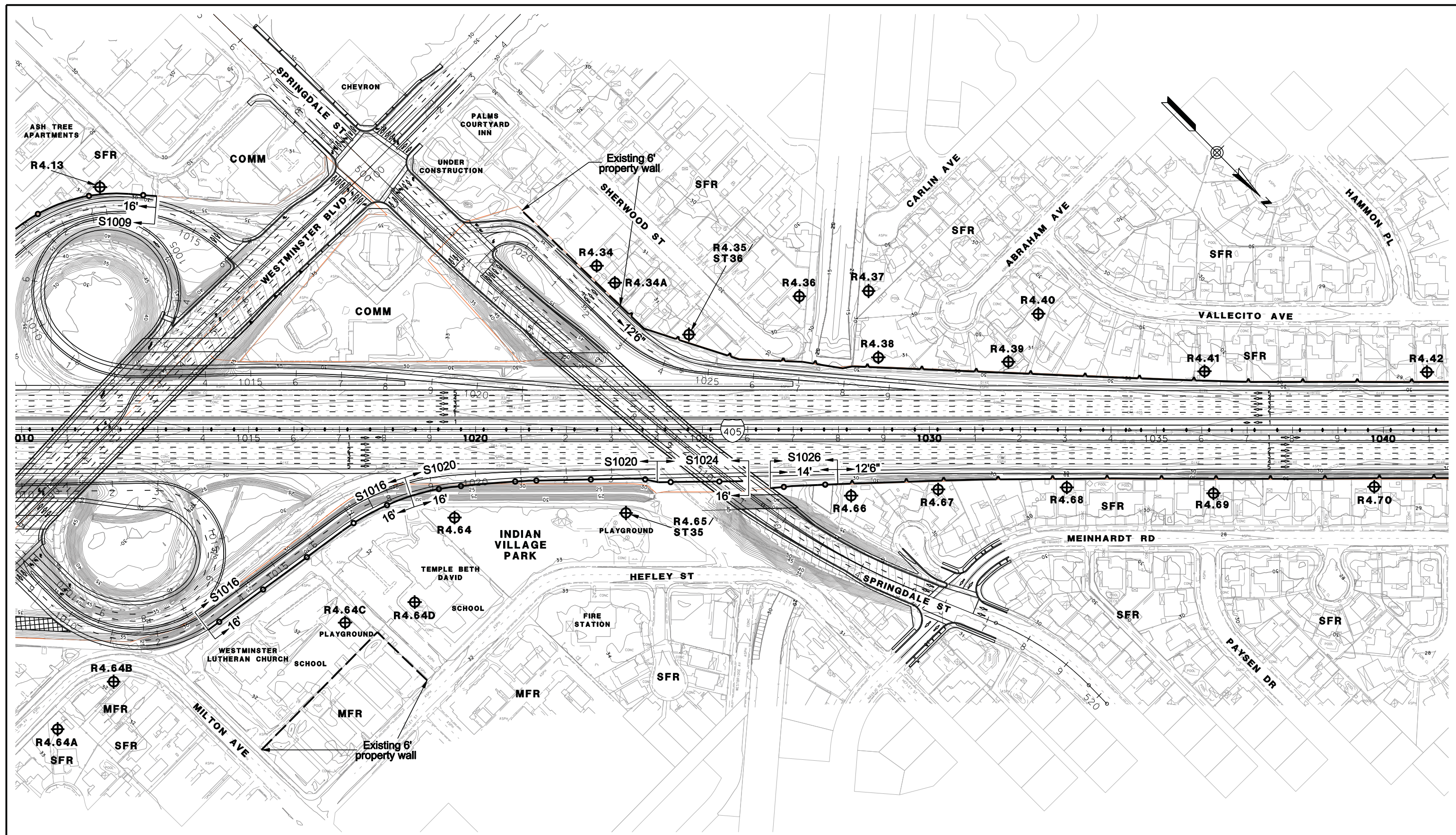
I-405 WIDENING PA/ED PROJECT

NADR RECOMMENDED BARRIER

HEIGHTS & LOCATIONS ALT1

AUGUST 16, 2011

FIGURE 17



LEGEND

⊕ **RXX** - RECEIVER SITE

⊕ **LT** - LONGTERM MEASUREMENT

⊕ **ST** - SHORTTERM MEASUREMENT

⊕ **CAL** - CALIBRATION SITE

--- EXISTING WALL

--- SOUNDWALL

--- EXISTING SOUNDWALL

--- REPLACEMENT IN KIND SOUNDWALL

SFR - SINGLE FAMILY RESIDENCE

MFR - MULTI-FAMILY RESIDENCE

COMM - COMMERCIAL

1in : 200ft

0 ft 100ft 200ft 300ft

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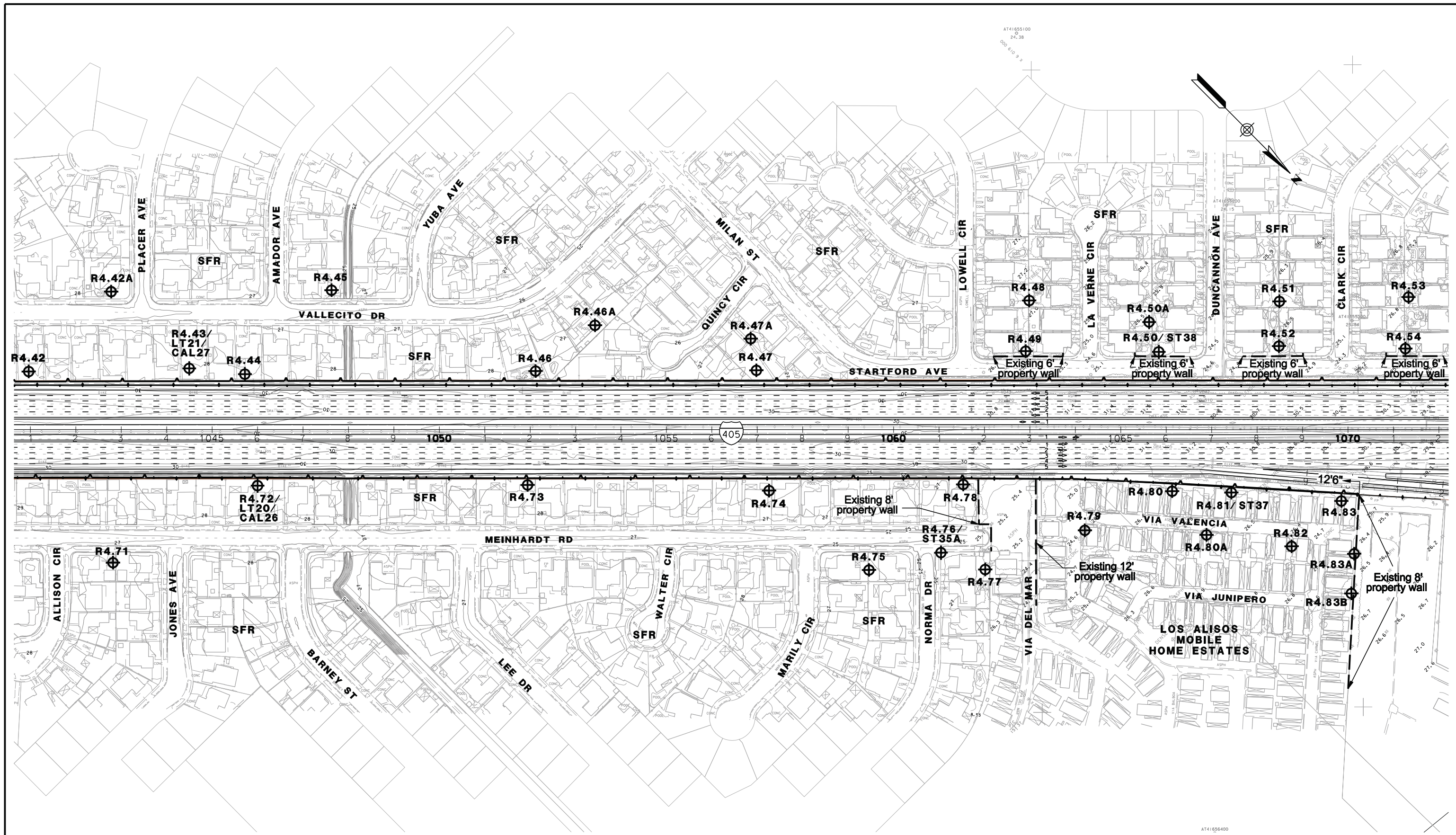
I-405 WIDENING PA/ED PROJECT

NADR RECOMMENDED BARRIER

HEIGHTS & LOCATIONS ALT1

AUGUST 26, 2011

FIGURE 18



LEGEND

- ⊕ **RXX** - RECEIVER SITE
- ⊕ **LT** - LONGTERM MEASUREMENT
- ⊕ **ST** - SHORTTERM MEASUREMENT
- ⊕ **CAL** - CALIBRATION SITE

- EXISTING WALL
- SOUNDWALL
- EXISTING SOUNDWALL
- REPLACEMENT IN KIND SOUNDWALL

- SFR** - SINGLE FAMILY RESIDENCE
- MFR** - MULTI-FAMILY RESIDENCE
- COMM** - COMMERCIAL
- b** - BENEFITED RESIDENCE

1in : 200ft



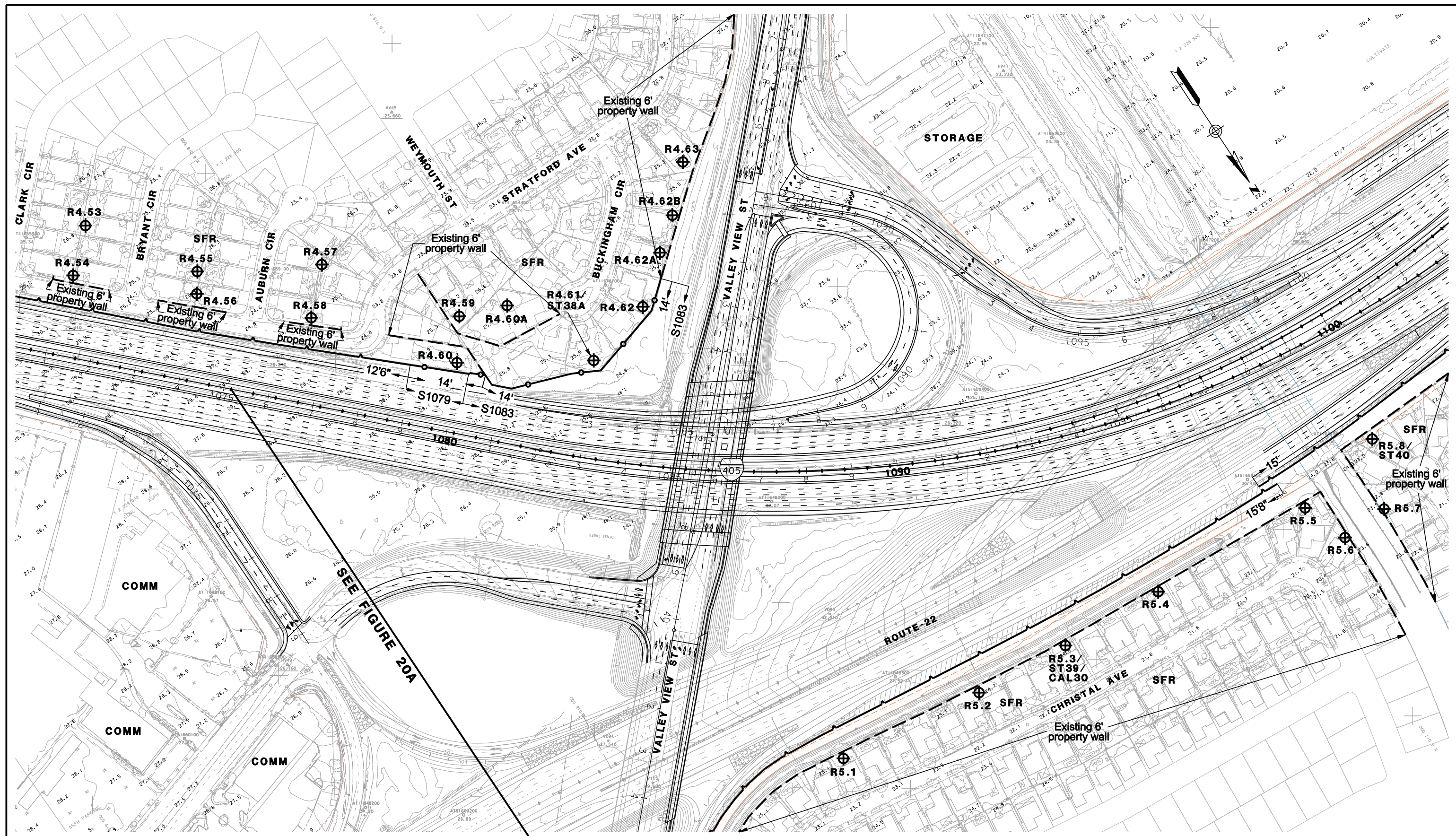
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NADR RECOMMENDED BARRIER
HEIGHTS & LOCATIONS ALT1**

FEBRUARY 25, 2011

FIGURE 19



LEGEND

⊕RXX - RECEIVER SITE

⊕LT - LONGTERM MEASUREMENT

⊕ST - SHORTTERM MEASUREMENT

⊕CAL - CALIBRATION SITE

--- EXISTING WALL

--- SOUNDWALL

--- EXISTING SOUNDWALL

--- REPLACEMENT IN KIND SOUNDWALL

SFR - SINGLE FAMILY RESIDENCE

MFR - MULTI-FAMILY RESIDENCE

COMM - COMMERCIAL

b - BENEFITED RESIDENCE

1in : 200ft

0 ft 100ft 200ft 300ft

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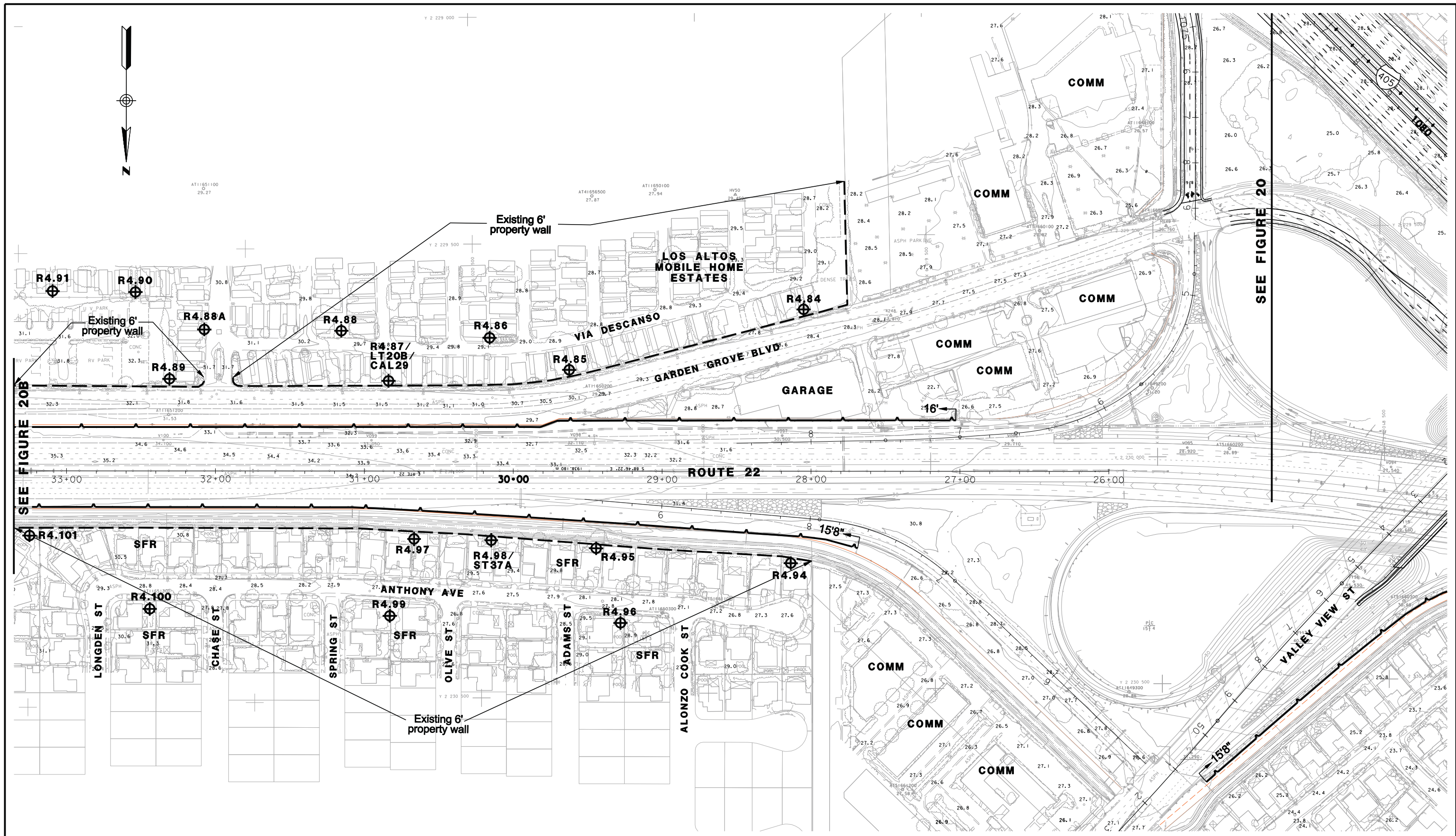
I-405 WIDENING PA/ED PROJECT

NADR RECOMMENDED BARRIER

HEIGHTS & LOCATIONS ALT1

MARCH 23, 2011

FIGURE 20



LEGEND

- RXX** - RECEIVER SITE
- LT** - LONGTERM MEASUREMENT
- ST** - SHORTTERM MEASUREMENT
- CAL** - CALIBRATION SITE

- EXISTING WALL
- SOUNDWALL
- EXISTING SOUNDWALL
- REPLACEMENT IN KIND SOUNDWALL

- SFR** - SINGLE FAMILY RESIDENCE
- MFR** - MULTI-FAMILY RESIDENCE
- COMM** - COMMERCIAL
- b** - BENEFITED RESIDENCE

1in : 200ft



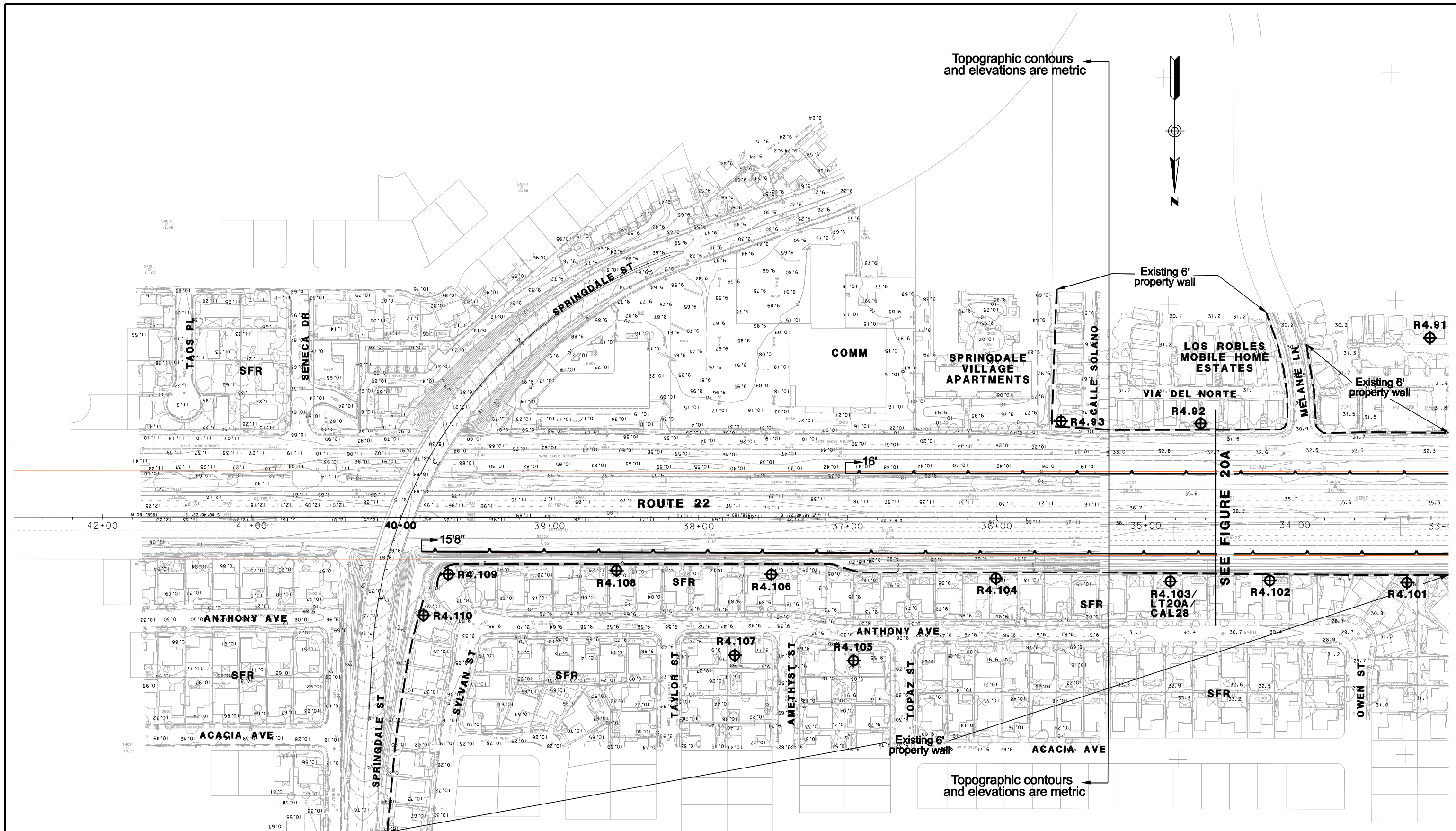
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NADR RECOMMENDED BARRIER
HEIGHTS & LOCATIONS ALT1**

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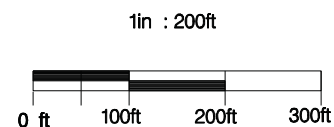
FIGURE 20A



- LEGEND**
- ⊕RXX - RECEIVER SITE
 - ⊕LT - LONGTERM MEASUREMENT
 - ⊕ST - SHORTTERM MEASUREMENT
 - ⊕CAL - CALIBRATION SITE

- EXISTING WALL
- SOUNDWALL
- EXISTING SOUNDWALL
- REPLACEMENT IN KIND SOUNDWALL

- SFR - SINGLE FAMILY RESIDENCE
- MFR - MULTI-FAMILY RESIDENCE
- COMM - COMMERCIAL
- b - BENEFITED RESIDENCE

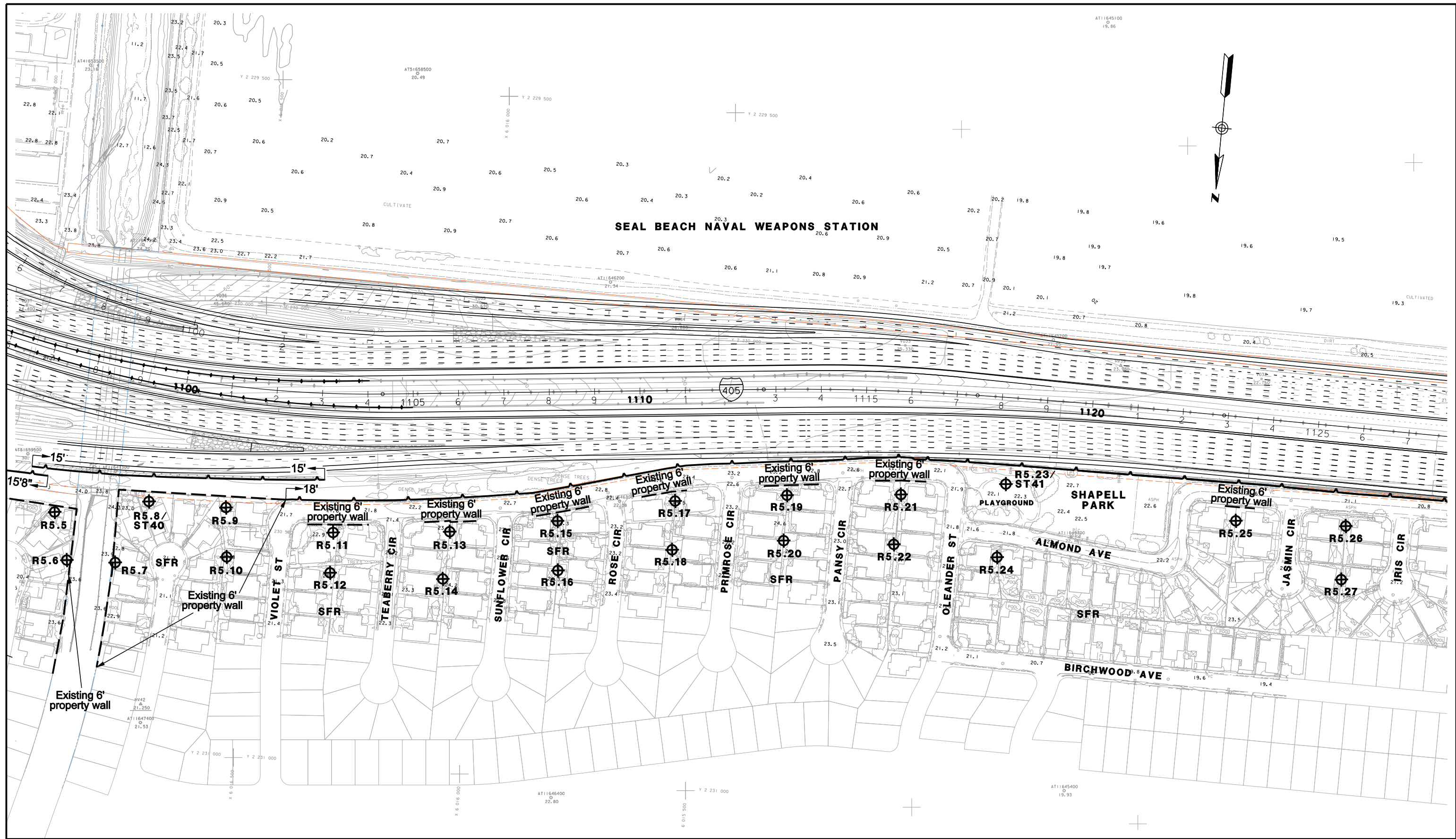


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NADR RECOMMENDED BARRIER
HEIGHTS & LOCATIONS ALT1**

FEBRUARY 25, 2011

FIGURE 20B

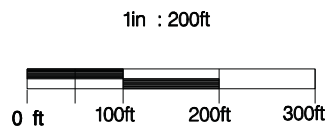


LEGEND

⊕ RXX - RECEIVER SITE
⊕ LT - LONGTERM MEASUREMENT
⊕ ST - SHORTTERM MEASUREMENT
⊕ CAL - CALIBRATION SITE

--- EXISTING WALL
--- SOUNDWALL
--- EXISTING SOUNDWALL
--- REPLACEMENT IN KIND SOUNDWALL

SFR - SINGLE FAMILY RESIDENCE
MFR - MULTI-FAMILY RESIDENCE
COMM - COMMERCIAL
b - BENEFITED RESIDENCE

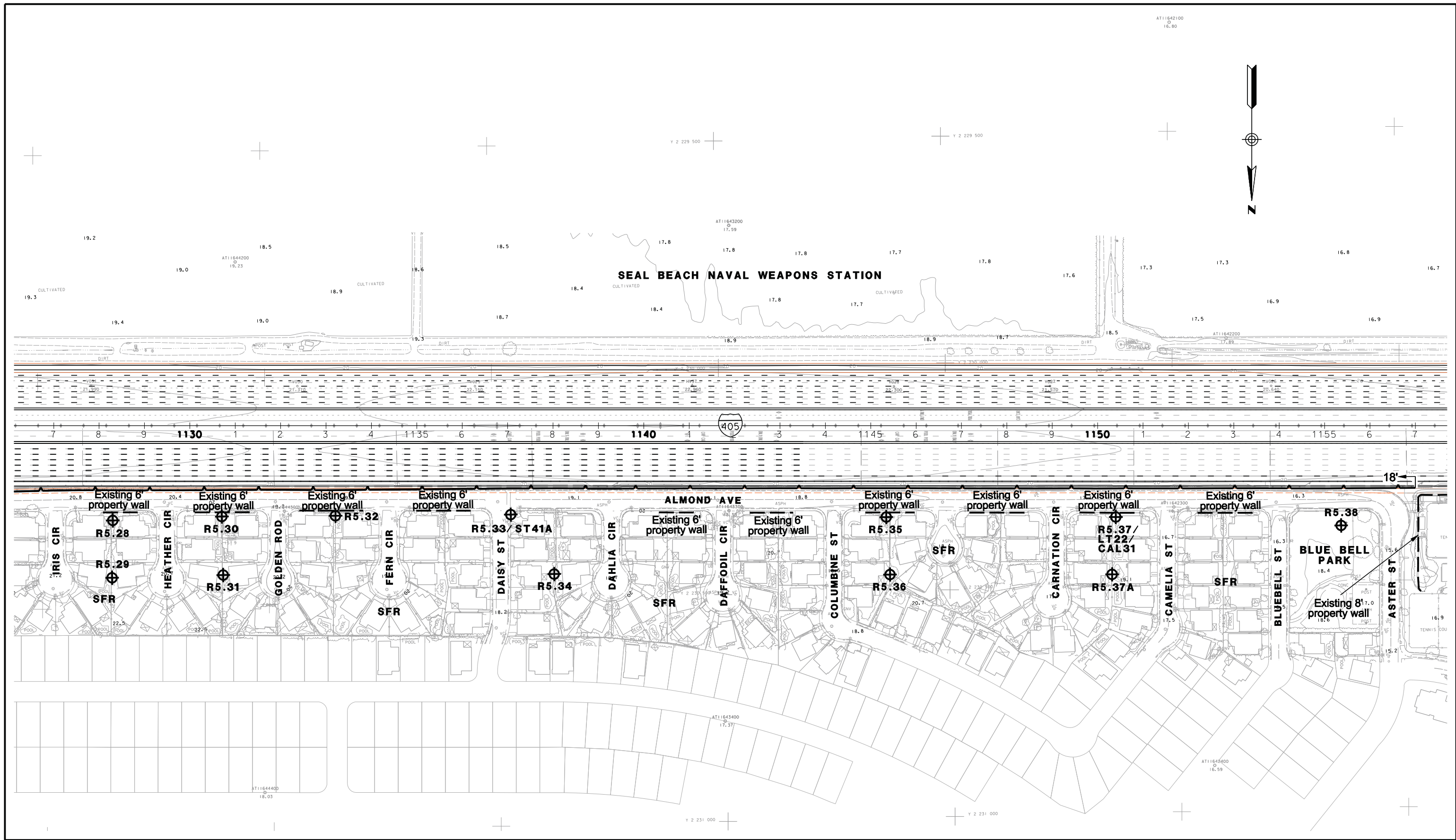


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**I-405 WIDENING PA/ED PROJECT
NADR RECOMMENDED BARRIER
HEIGHTS & LOCATIONS ALT1**

FEBRUARY 25, 2011

FIGURE 21



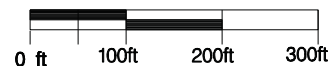
LEGEND

- ⊕ **RXX** - RECEIVER SITE
- ⊕ **LT** - LONGTERM MEASUREMENT
- ⊕ **ST** - SHORTTERM MEASUREMENT
- ⊕ **CAL** - CALIBRATION SITE

- EXISTING WALL
- SOUNDWALL
- ▲— EXISTING SOUNDWALL
- ◆— REPLACEMENT IN KIND SOUNDWALL

- SFR** - SINGLE FAMILY RESIDENCE
- MFR** - MULTI-FAMILY RESIDENCE
- COMM** - COMMERCIAL
- b** - BENEFITED RESIDENCE

1in : 200ft



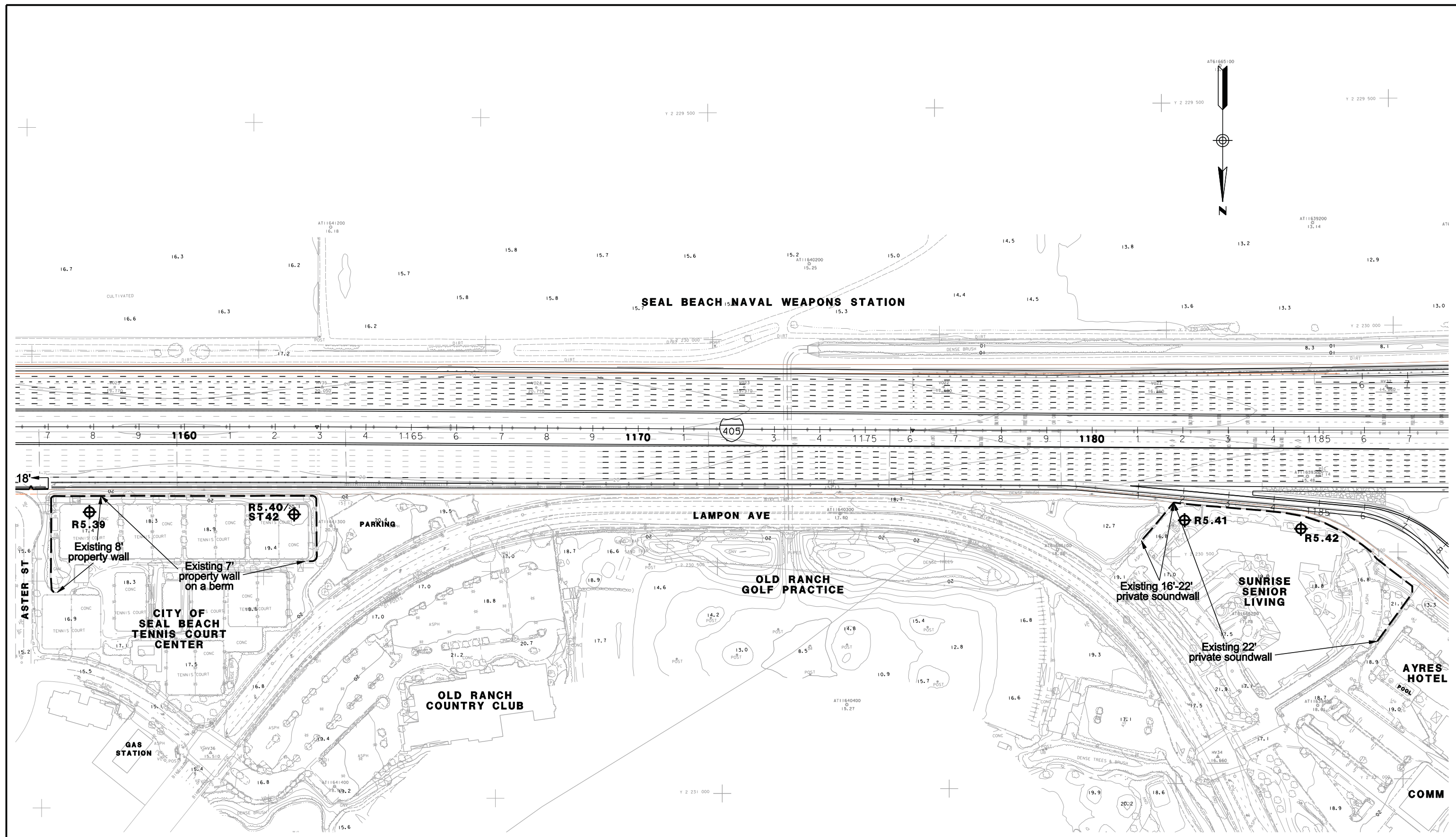
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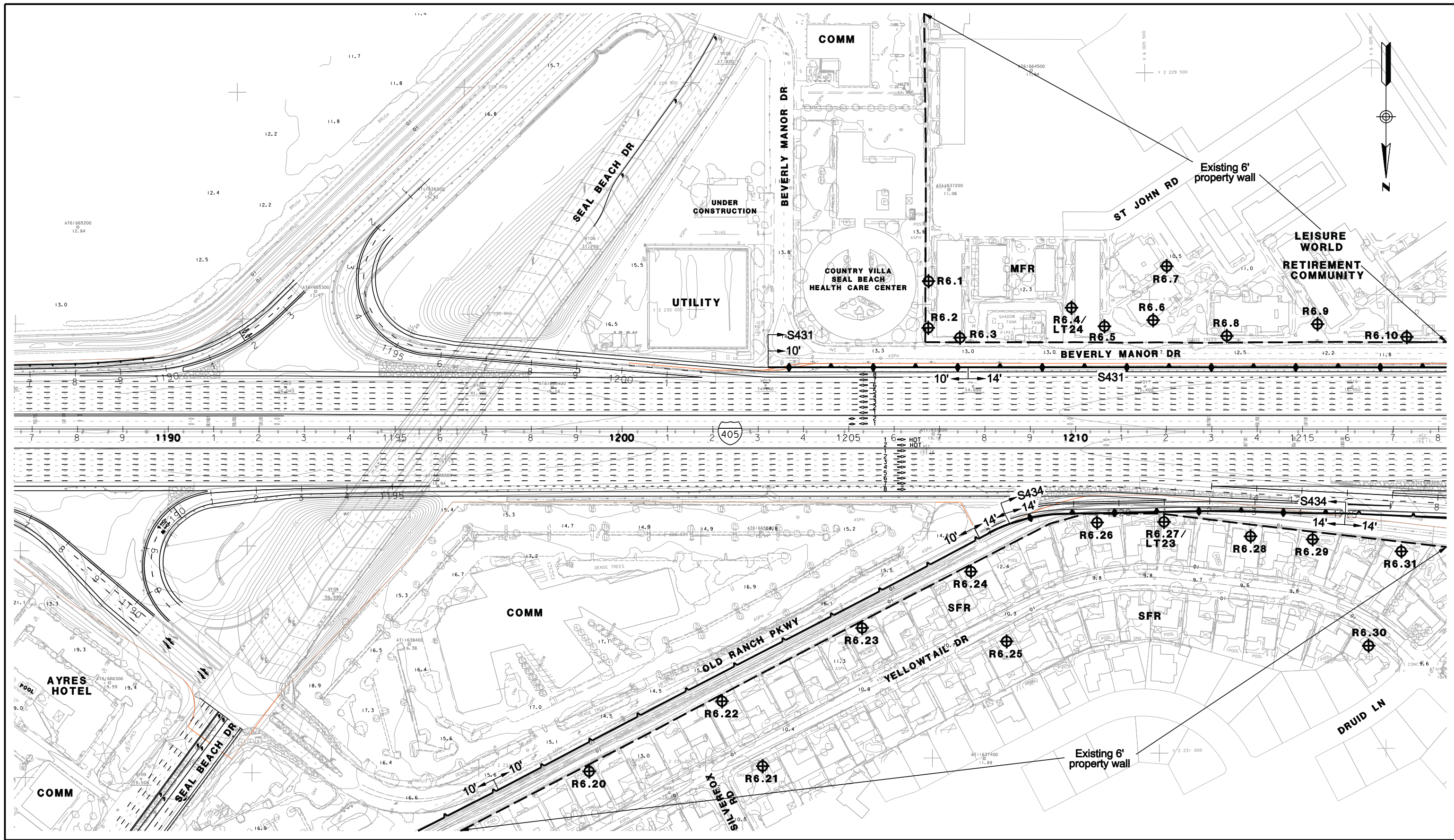
**I-405 WIDENING PA/ED PROJECT
NADR RECOMMENDED BARRIER
HEIGHTS & LOCATIONS ALT1**

FEBRUARY 25, 2011

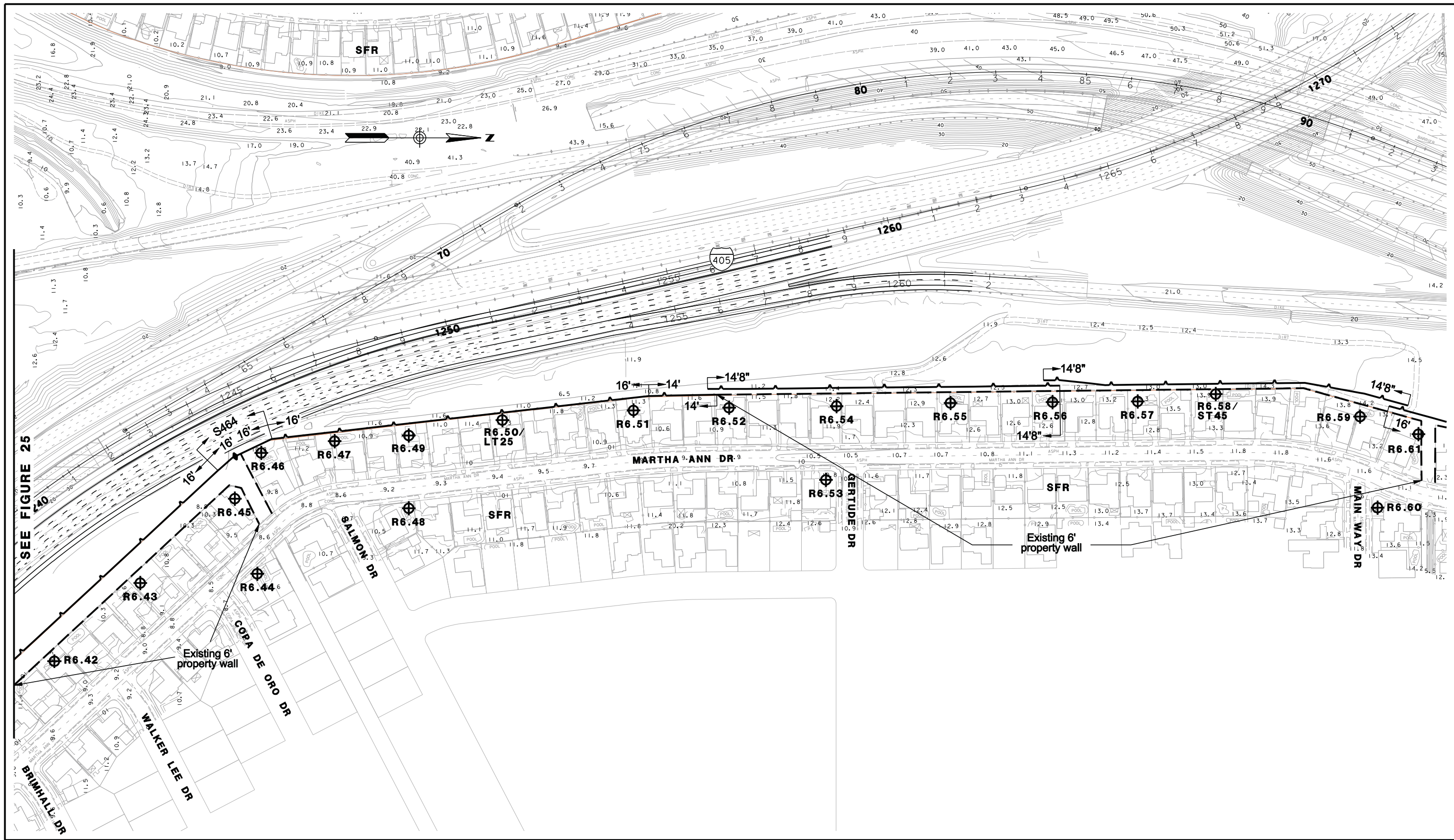
FIGURE 22



LEGEND ⊕RXX - RECEIVER SITE ⊕LT - LONGTERM MEASUREMENT ⊕ST - SHORTTERM MEASUREMENT ⊕CAL - CALIBRATION SITE	 --- EXISTING WALL --- SOUNDWALL --- EXISTING SOUNDWALL --- REPLACEMENT IN KIND SOUNDWALL	SFR - SINGLE FAMILY RESIDENCE MFR - MULTI-FAMILY RESIDENCE COMM - COMMERCIAL b - BENEFITED RESIDENCE	1in : 200ft 0 ft 100ft 200ft 300ft	PARSONS 100 WEST WALNUT ST. PASADENA, CA 91124 (626) 440-6100	I-405 WIDENING PA/ED PROJECT NADR RECOMMENDED BARRIER HEIGHTS & LOCATIONS ALT1 FEBRUARY 25, 2011	FIGURE 23
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LEGEND ⊕RXX - RECEIVER SITE ⊕LT - LONGTERM MEASUREMENT ⊕ST - SHORTTERM MEASUREMENT ⊕CAL - CALIBRATION SITE		--- EXISTING WALL --- SOUNDWALL --- EXISTING SOUNDWALL --- REPLACEMENT IN KIND SOUNDWALL		SFR - SINGLE FAMILY RESIDENCE MFR - MULTI-FAMILY RESIDENCE COMM - COMMERCIAL b - BENEFITED RESIDENCE		1in : 200ft 0 ft 100ft 200ft 300ft		PARSONS 100 WEST WALNUT ST. PASADENA, CA 91124 (626) 440-6100		I-405 WIDENING PA/ED PROJECT NADR RECOMMENDED BARRIER HEIGHTS & LOCATIONS ALT1	
						FEBRUARY 25, 2011		FIGURE 24			



N4: Alternative 2 Reasonableness Analysis Summary and Recommended Soundwall Locations

TABLE 2 - Noise Abatement Information Alternative 2 (1 of 3)

Noise Barrier No.	Height (feet)	Acoustically Feasible?	Number of Benefited Residences	Total Reasonable Allowance	Estimated Construction Cost	Cost Less than Allowance	Preliminary Noise Abatement Decision
S649	12	No	N/A	N/A	N/A	N/A	Replace in-kind
S699	16	No	N/A	N/A	N/A	N/A	Replace in-kind
S705	12	No	N/A	N/A	N/A	N/A	Replace in-kind
S710	12	No	N/A	N/A	N/A	N/A	Replace in-kind
S708	12	Yes	24	\$1,080,000	\$721,000	Yes	Reasonable
S718	16						Reasonable
S733	12	Yes	1	\$43,000	\$107,000	No	Not Reasonable
S746	14	Yes	2	\$102,000	\$66,000	Yes	Reasonable
S745A	12-14	Yes	2	\$98,000	\$137,000	No	Not Reasonable
S745B	14	Yes	2	\$98,000	\$107,000	No	Replace in-kind*
S765	14-16	No	N/A	N/A	\$74,000	N/A	Replace in-kind*
S766	14	No	N/A	N/A	\$50,000	N/A	Replace in-kind*
S776	12	Yes	1	\$41,000	\$82,000	No	Reasonable Severe Impact
S795	12	Yes	53	\$2,385,000	\$356,000	Yes	Reasonable
S807	14	Yes	7	\$273,000	\$239,000	Yes	Reasonable
S811	10-16						Replace in-kind (higher)
S827	10-12	No	N/A	N/A	N/A	N/A	Replace in-kind
S834	16	Yes	6	\$270,000	\$523,000	No	Not Reasonable
S841	16	Yes	7	\$385,000	\$205,000	Yes	Reasonable
S857	14	Yes	7	\$343,000	\$82,000	Yes	Reasonable
S868	16	Yes	1	\$35,000	\$121,000	No	Not Reasonable
S896	10	No	N/A	N/A	\$30,000	N/A	Replace in-kind*

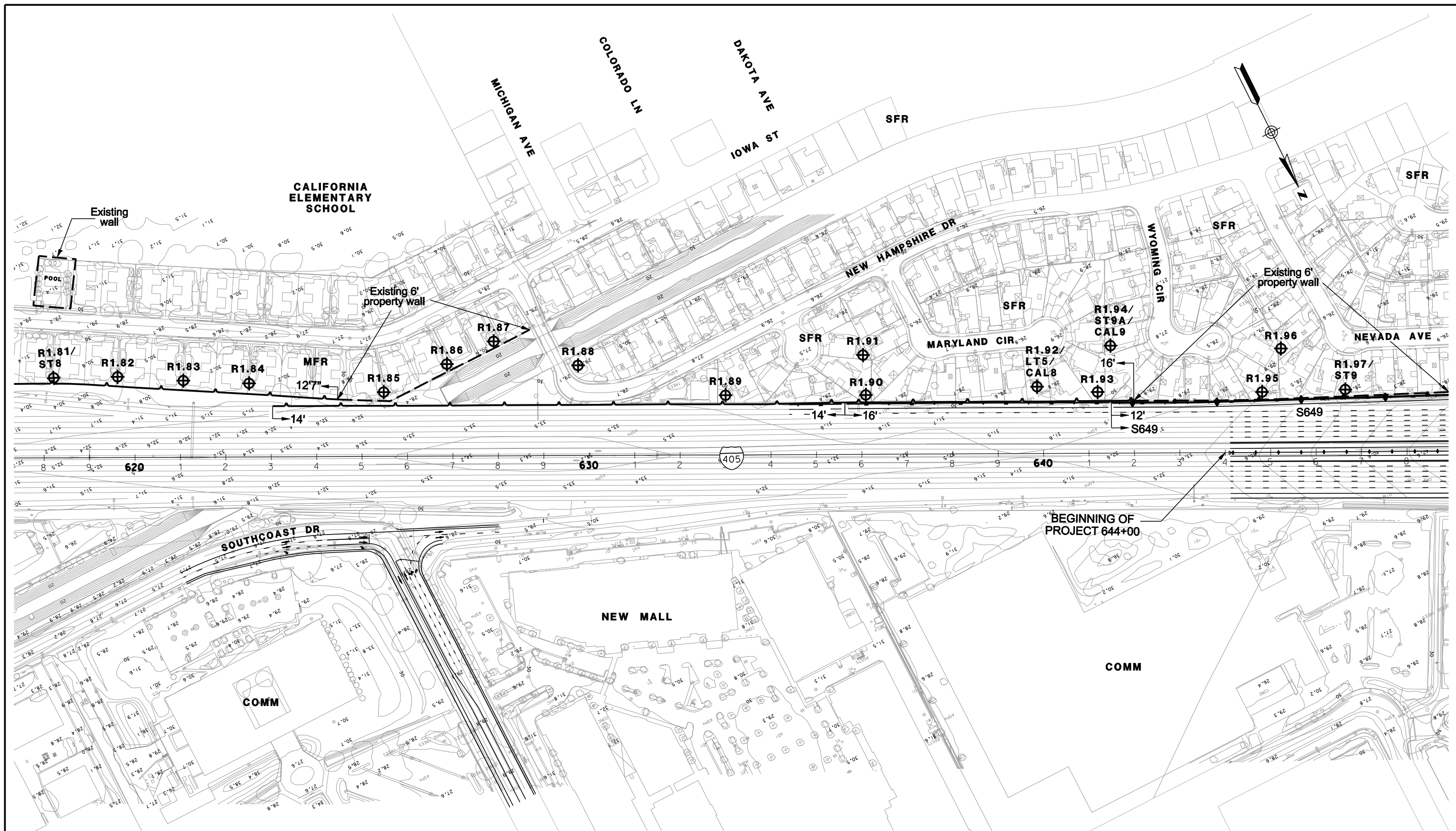
TABLE 2 - Noise Abatement Information Alternative 2 (2 of 3)

Noise Barrier No.	Height (feet)	Acoustically Feasible?	Number of Benefited Residences	Total Reasonable Allowance	Estimated Construction Cost	Cost Less than Allowance	Preliminary Noise Abatement Decision
S900	8	No	N/A	N/A	N/A	N/A	Replace in-kind
S908	8	Yes	7	\$315,000	\$361,000	No	Replace in-kind
S916	16						Not Reasonable
S907	14	Yes	6	\$270,000	\$232,000	Yes	Reasonable
S141	8	No	N/A	N/A	N/A	N/A	Replace in-kind
S935	16	Yes	4	\$180,000	\$147,000	Yes	Reasonable
S182	10	No	N/A	N/A	N/A	N/A	Replace in-kind
S972	12-14-16	Yes	13	\$507,000	\$416,000	Yes	Replace in-kind (higher)
S978	16						Reasonable
S995	14-16	Yes	2	\$74,000	\$81,000	No	Not Reasonable
S998	16	Yes	2	\$94,000	\$53,000	Yes	Reasonable
S1006	16	Yes	7	\$385,000	\$123,000	Yes	Reasonable
S1005	12	Yes	11	\$583,000	\$320,000	Yes	Replace in-kind (higher)
S1009	16						Reasonable
S1016	16	Yes	8	\$376,000	\$349,000	Yes	Reasonable
S1020	16						Replace in-kind (higher)
S1022	16						Replace in-kind (higher)
S1024	16						Reasonable
S1026	14						Replace in-kind*
S1028	16	Yes	1	\$45,000	\$144,000	No	Not Reasonable
S786	14	Yes	3	\$135,000	\$124,000	Yes	Reasonable
S790	14						Replace in-kind (higher)

TABLE 2 - Noise Abatement Information Alternative 2 (3 of 3)

Noise Barrier No.	Height (feet)	Acoustically Feasible?	Number of Benefited Residences	Total Reasonable Allowance	Estimated Construction Cost	Cost Less than Allowance	Preliminary Noise Abatement Decision
S1083	14-16	Yes	5	\$255,000	\$196,000	Yes	Reasonable
S1116	18	No	N/A	N/A	N/A	N/A	Replace in-kind
S1142	18	No	N/A	N/A	N/A	N/A	Replace in-kind
S1162	12	Yes	3	\$129,000	\$225,000	No	Not Reasonable
S431	10-14	No	N/A	N/A	N/A	N/A	Replace in-kind
S434	14	No	N/A	N/A	N/A	N/A	Replace in-kind
S445	14	No	N/A	N/A	N/A	N/A	Replace in-kind
S1226	16	Yes	3	\$141,000	\$163,000	No	Replace in-kind*
S464	16	No	N/A	N/A	N/A	N/A	Replace in-kind
S1037A	12	No	N/A	N/A	N/A	N/A	Replace in-kind
S1037B	12	No	N/A	N/A	N/A	N/A	Replace in-kind
S1044A	12	No	N/A	N/A	N/A	N/A	Replace in-kind
S1044B	12	No	N/A	N/A	N/A	N/A	Replace in-kind

*Replacement or gap closure soundwall for existing berm or natural abatement.



LEGEND

- ⊕ RXX - RECEIVER SITE
- ⊕ LT - LONGTERM MEASUREMENT
- ⊕ ST - SHORTTERM MEASUREMENT
- ⊕ CAL - CALIBRATION SITE

- EXISTING WALL
- SOUNDWALL
- EXISTING SOUNDWALL
- REPLACEMENT IN KIND SOUNDWALL

- SFR - SINGLE FAMILY RESIDENCE
- MFR - MULTI-FAMILY RESIDENCE
- COMM - COMMERCIAL
- b - BENEFITED RESIDENCE

1in = 200ft



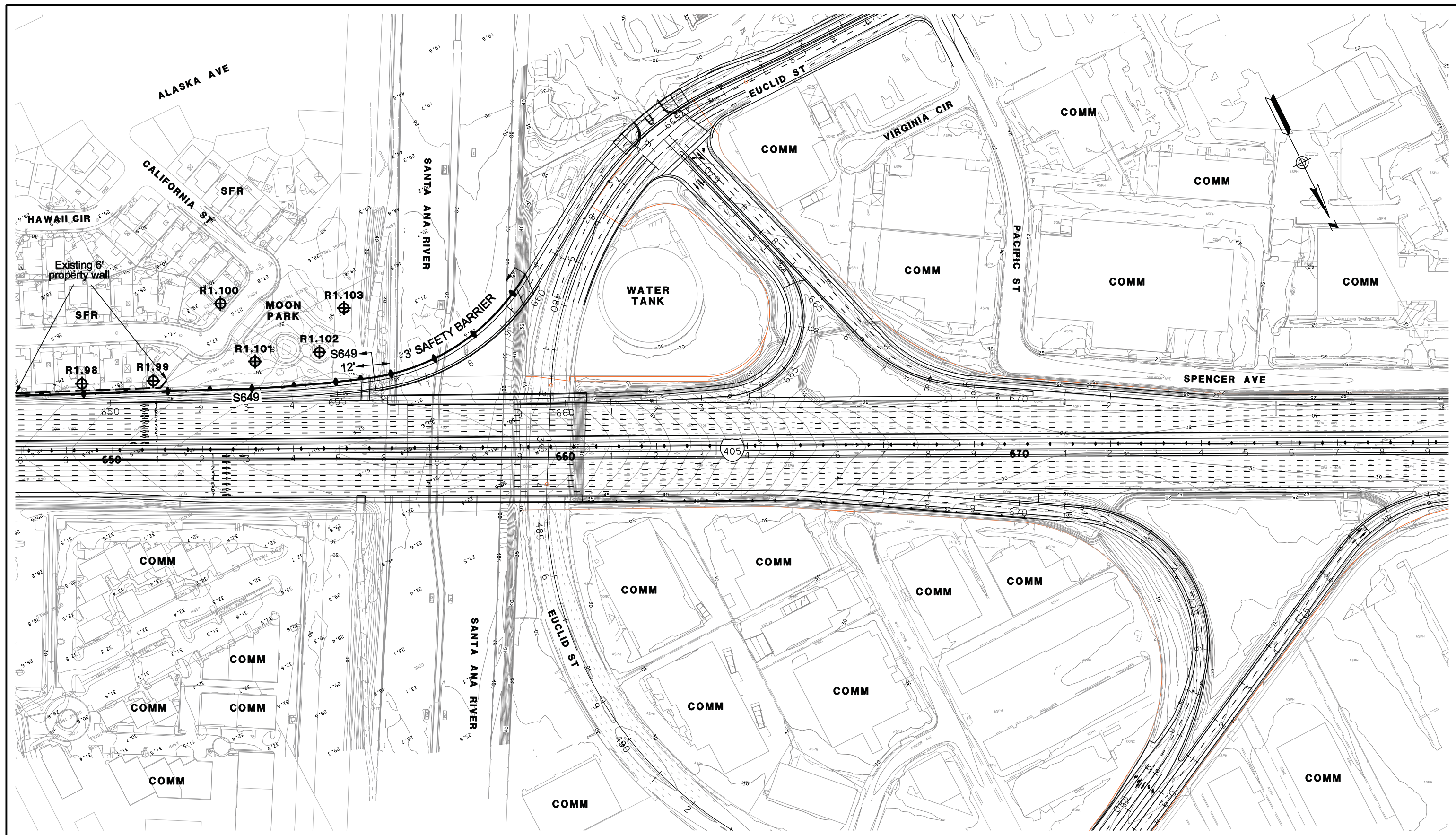
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FIGURE 5



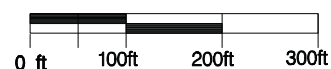
LEGEND

- ⊕ RXX - RECEIVER SITE
- ⊕ LT - LONGTERM MEASUREMENT
- ⊕ ST - SHORTTERM MEASUREMENT
- ⊕ CAL - CALIBRATION SITE

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- EXISTING SOUNDWALL
- REPLACEMENT IN KIND SOUNDWALL

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- MFR - MULTI-FAMILY RESIDENCE
- COMM - COMMERCIAL
- b - BENEFITED RESIDENCE

1in : 200ft



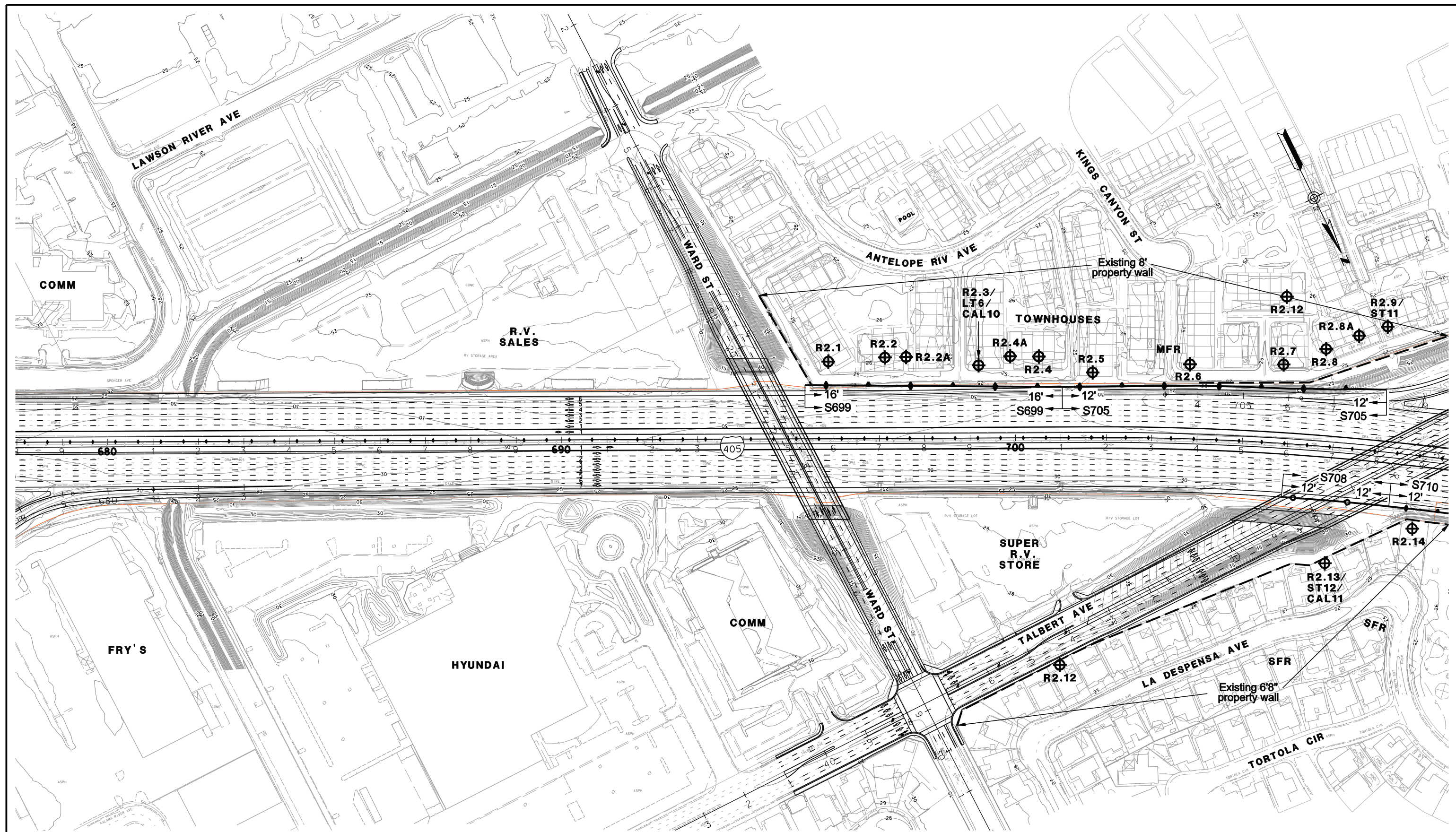
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FIGURE 6



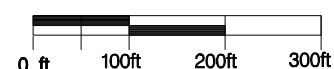
LEGEND

- ⊕RX - RECEIVER SITE
- ⊕LT - LONGTERM MEASUREMENT
- ⊕ST - SHORTTERM MEASUREMENT
- ⊕CAL - CALIBRATION SITE

- EXISTING WALL
- SOUNDWALL
- EXISTING SOUNDWALL
- REPLACEMENT IN KIND SOUNDWALL

- SFR - SINGLE FAMILY RESIDENCE
- MFR - MULTI-FAMILY RESIDENCE
- COMM - COMMERCIAL
- b - BENEFITED RESIDENCE

1in : 200ft



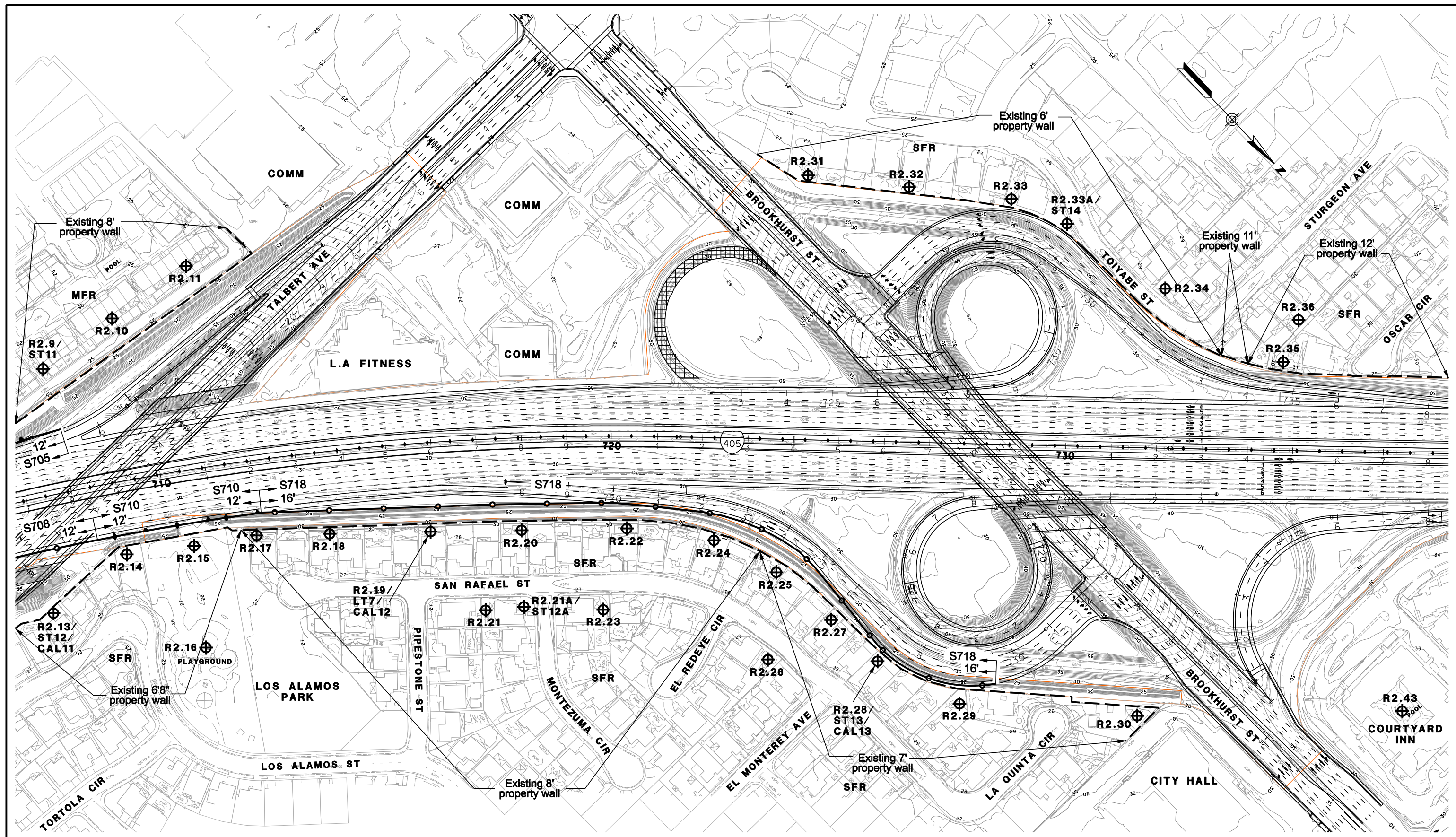
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FIGURE 7



LEGEND

⊕RXX - RECEIVER SITE
 ⊕LT - LONGTERM MEASUREMENT
 ⊕ST - SHORTTERM MEASUREMENT
 ⊕CAL - CALIBRATION SITE

--- EXISTING WALL
 --- SOUNDWALL
 --- EXISTING SOUNDWALL
 --- REPLACEMENT IN KIND SOUNDWALL

SFR - SINGLE FAMILY RESIDENCE
 MFR - MULTI-FAMILY RESIDENCE
 COMM - COMMERCIAL

1in : 200ft

0 ft 100ft 200ft 300ft

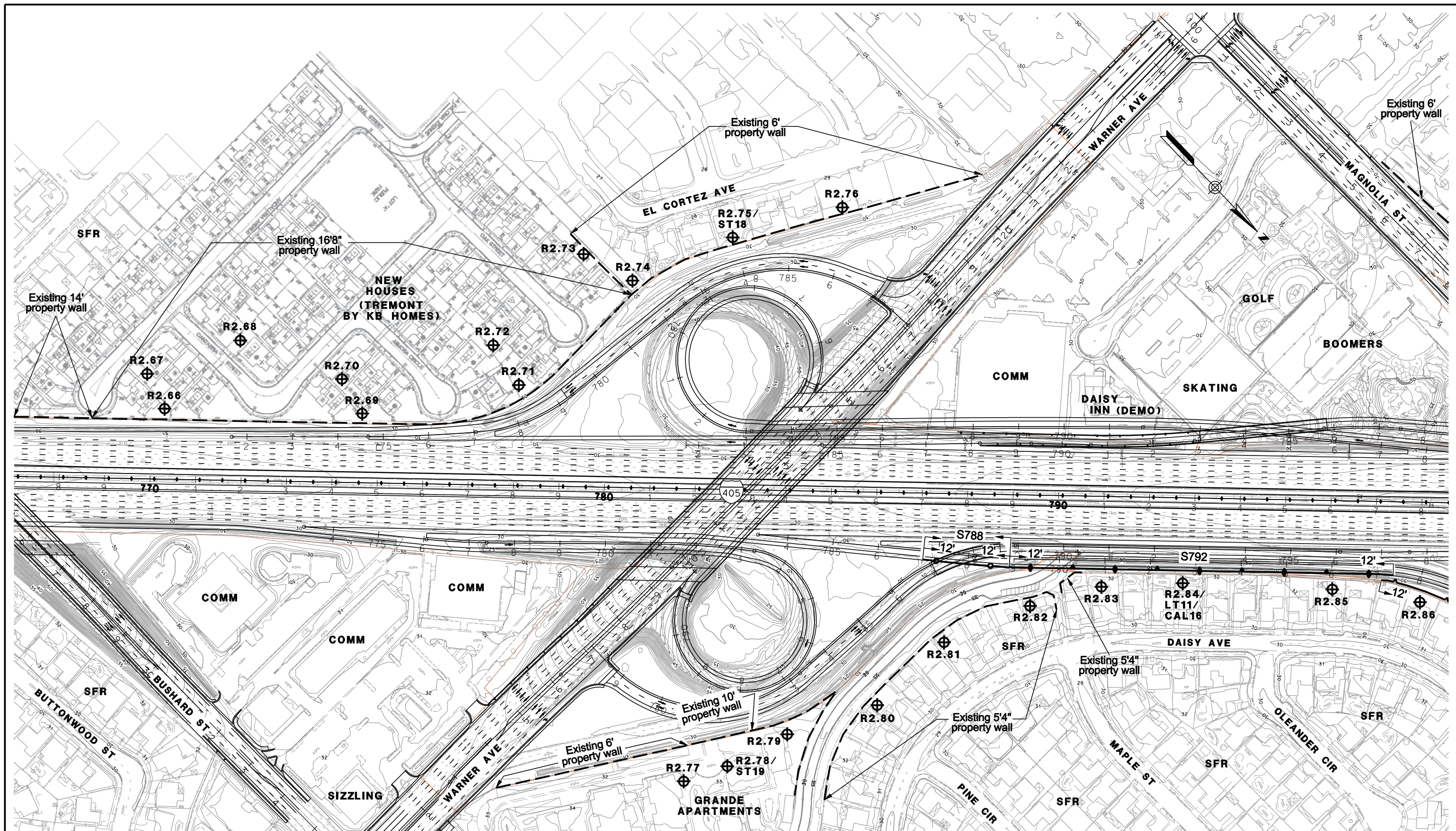
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 HEIGHTS & LOCATIONS ALT2**

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FIGURE 8





LEGEND

⊕RXX - RECEIVER SITE

⊕LT - LONGTERM MEASUREMENT

⊕ST - SHORTTERM MEASUREMENT

⊕CAL - CALIBRATION SITE

--- EXISTING WALL

— SOUNDWALL

— EXISTING SOUNDWALL

— REPLACEMENT IN KIND SOUNDWALL

SFR - SINGLE FAMILY RESIDENCE

MFR - MULTI-FAMILY RESIDENCE

COMM - COMMERCIAL

b - BENEFITED RESIDENCE

1in : 200ft

0 ft 100ft 200ft 300ft

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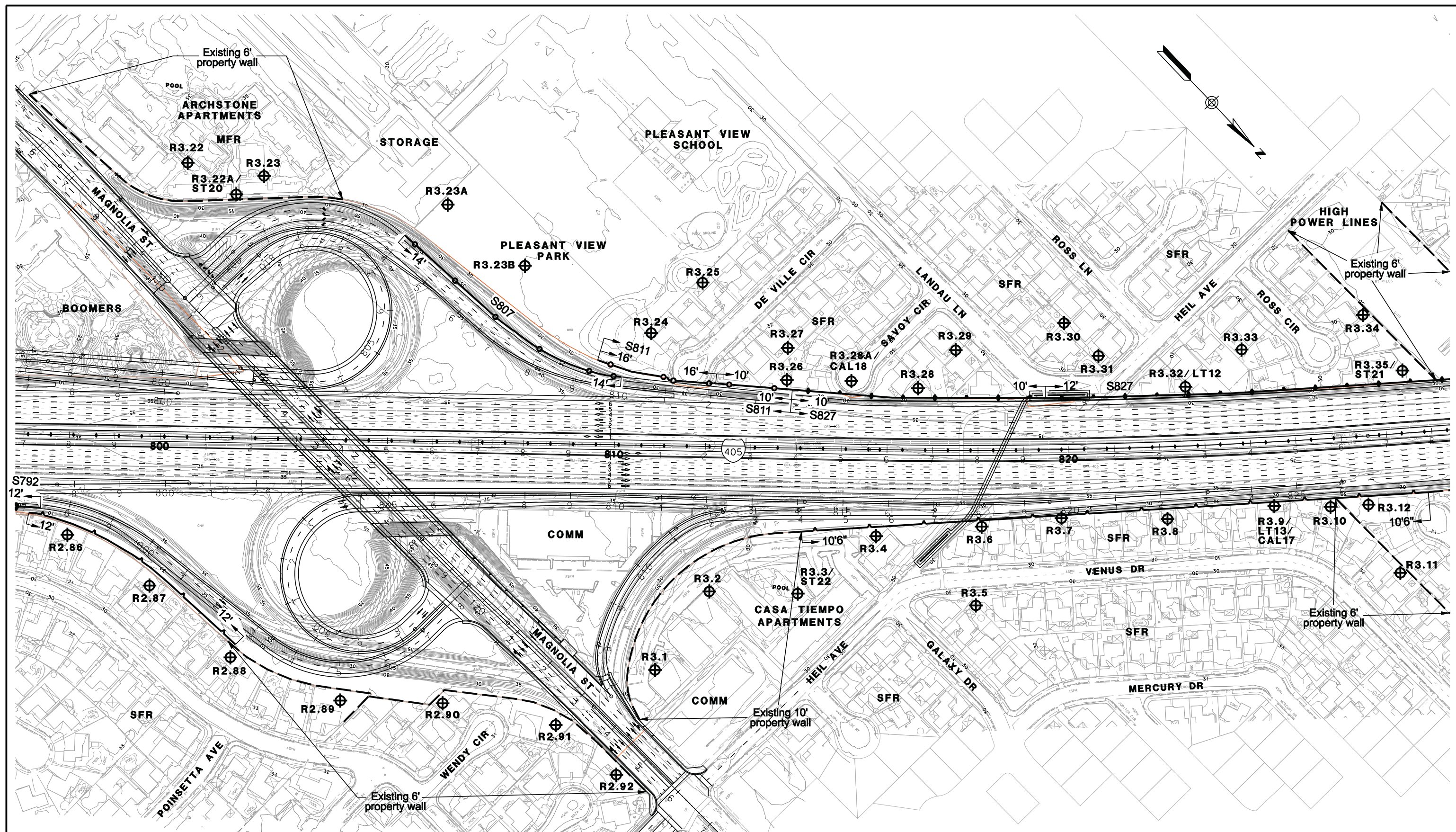
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HEIGHTS & LOCATIONS ALT2

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FIGURE 10

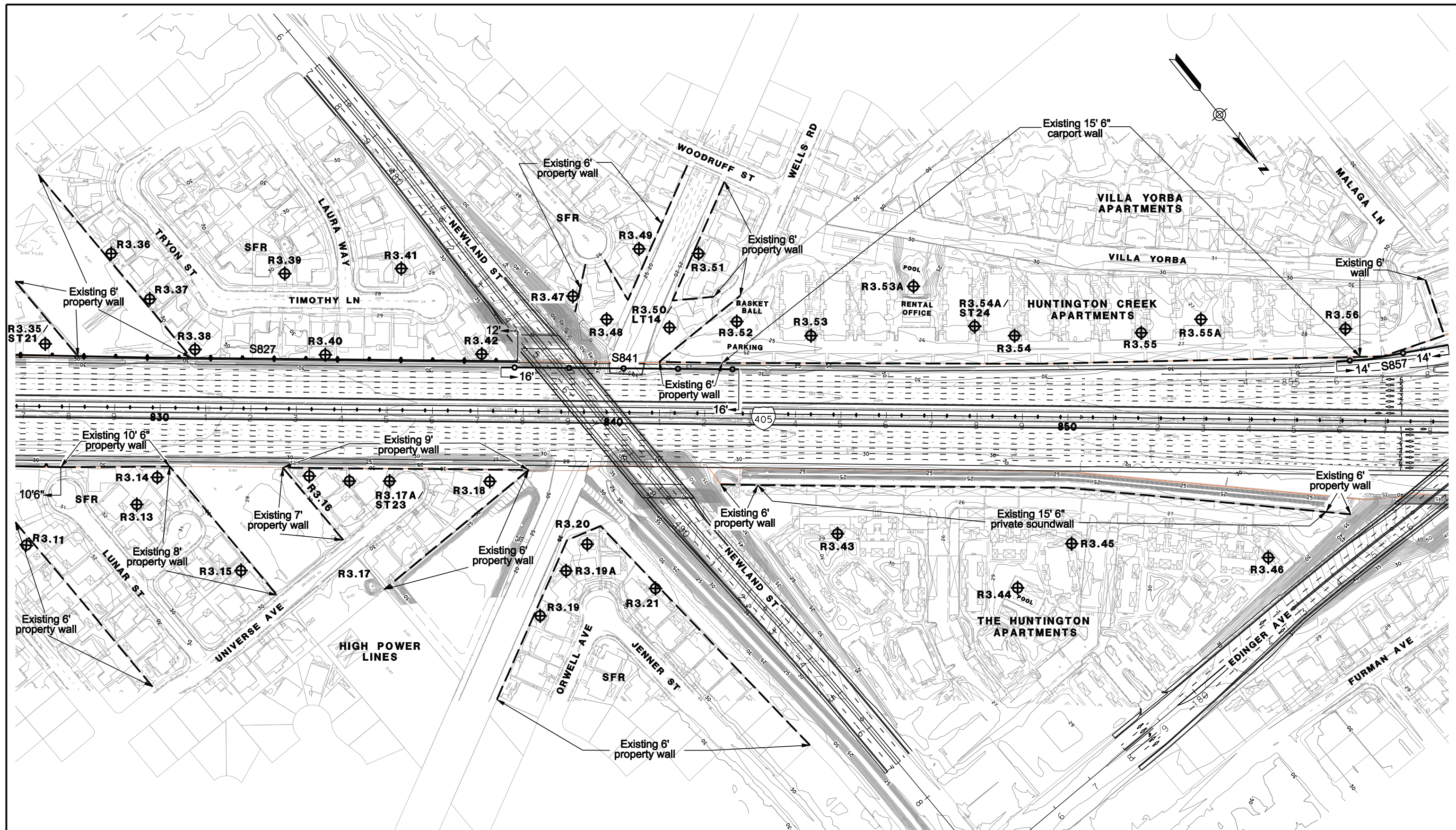


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FIGURE 11



LEGEND

⊕RXX - RECEIVER SITE
 ⊕LT - LONGTERM MEASUREMENT
 ⊕ST - SHORTTERM MEASUREMENT
 ⊕CAL - CALIBRATION SITE

--- EXISTING WALL
 --- SOUNDWALL
 --- EXISTING SOUNDWALL
 --- REPLACEMENT IN KIND SOUNDWALL

SFR - SINGLE FAMILY RESIDENCE
 MFR - MULTI-FAMILY RESIDENCE
 COMM - COMMERCIAL
 b - BENEFITED RESIDENCE

1in : 200ft

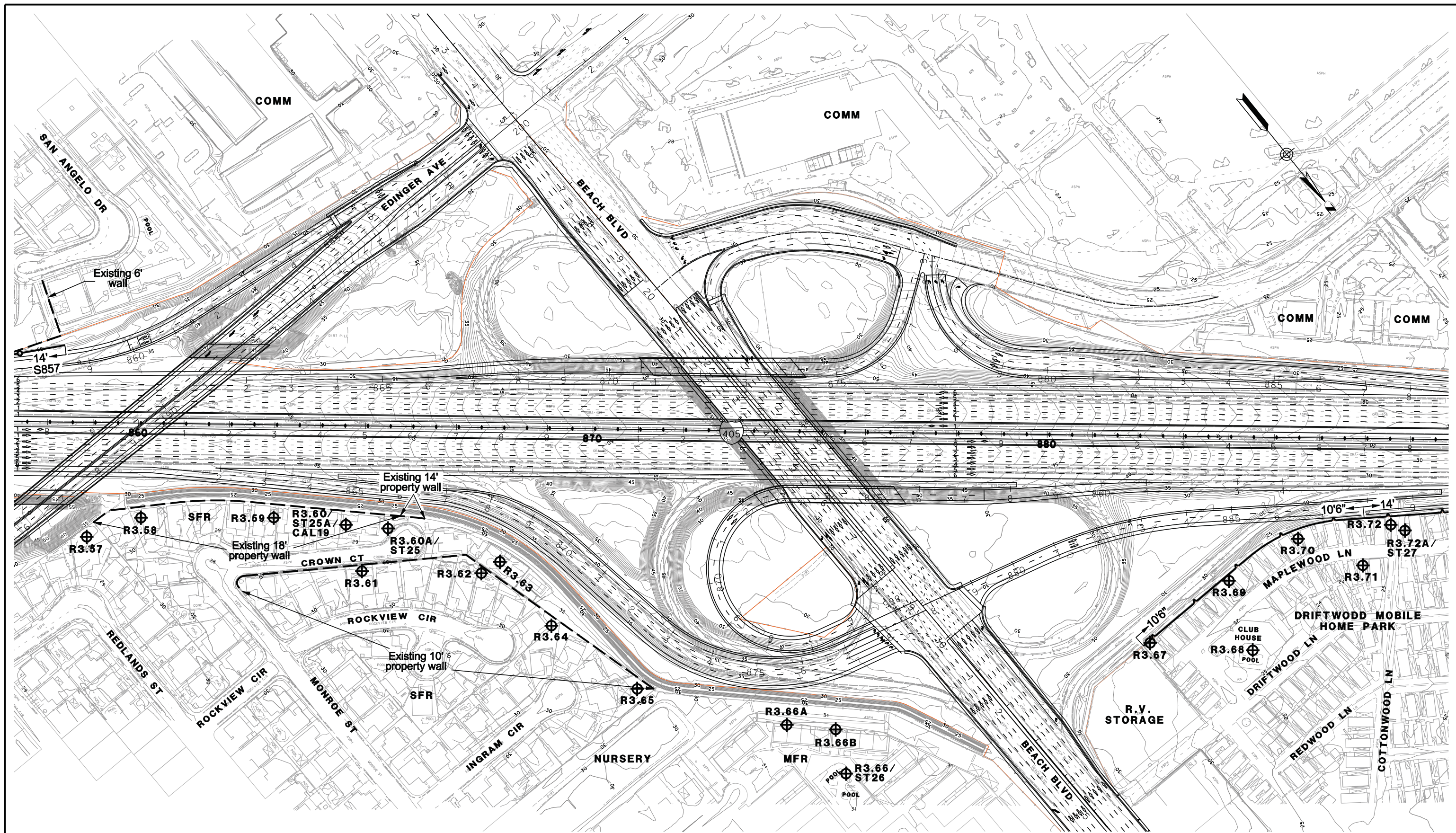
0 ft 100ft 200ft 300ft

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FIGURE 12



LEGEND

⊕RXX - RECEIVER SITE
⊕LT - LONGTERM MEASUREMENT
⊕ST - SHORTTERM MEASUREMENT
⊕CAL - CALIBRATION SITE

--- EXISTING WALL
--- SOUNDWALL
--- EXISTING SOUNDWALL
--- REPLACEMENT IN KIND SOUNDWALL

SFR - SINGLE FAMILY RESIDENCE
MFR - MULTI-FAMILY RESIDENCE
COMM - COMMERCIAL
b - BENEFITED RESIDENCE

1in : 200ft

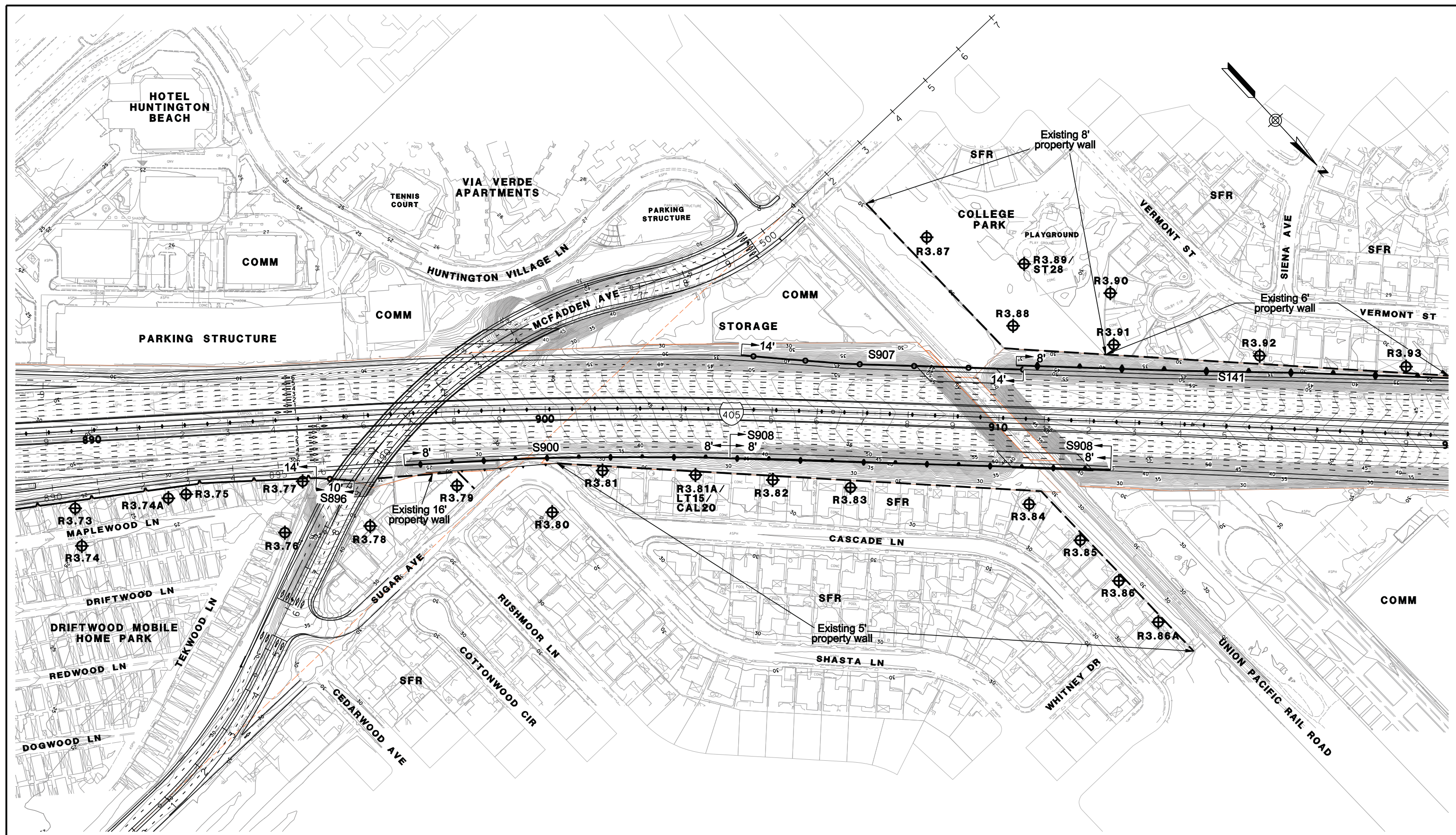
0 ft 100ft 200ft 300ft

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NADR RECOMMENDED BARRIER
HEIGHTS & LOCATIONS ALT2**

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FIGURE 13



LEGEND

- ⊕RXX - RECEIVER SITE
- ⊕LT - LONGTERM MEASUREMENT
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- ⊕CAL - CALIBRATION SITE

- EXISTING WALL
- SOUNDWALL
- EXISTING SOUNDWALL
- REPLACEMENT IN KIND SOUNDWALL

- SFR - SINGLE FAMILY RESIDENCE
- MFR - MULTI-FAMILY RESIDENCE
- COMM - COMMERCIAL
- b - BENEFITED RESIDENCE

1in : 200ft



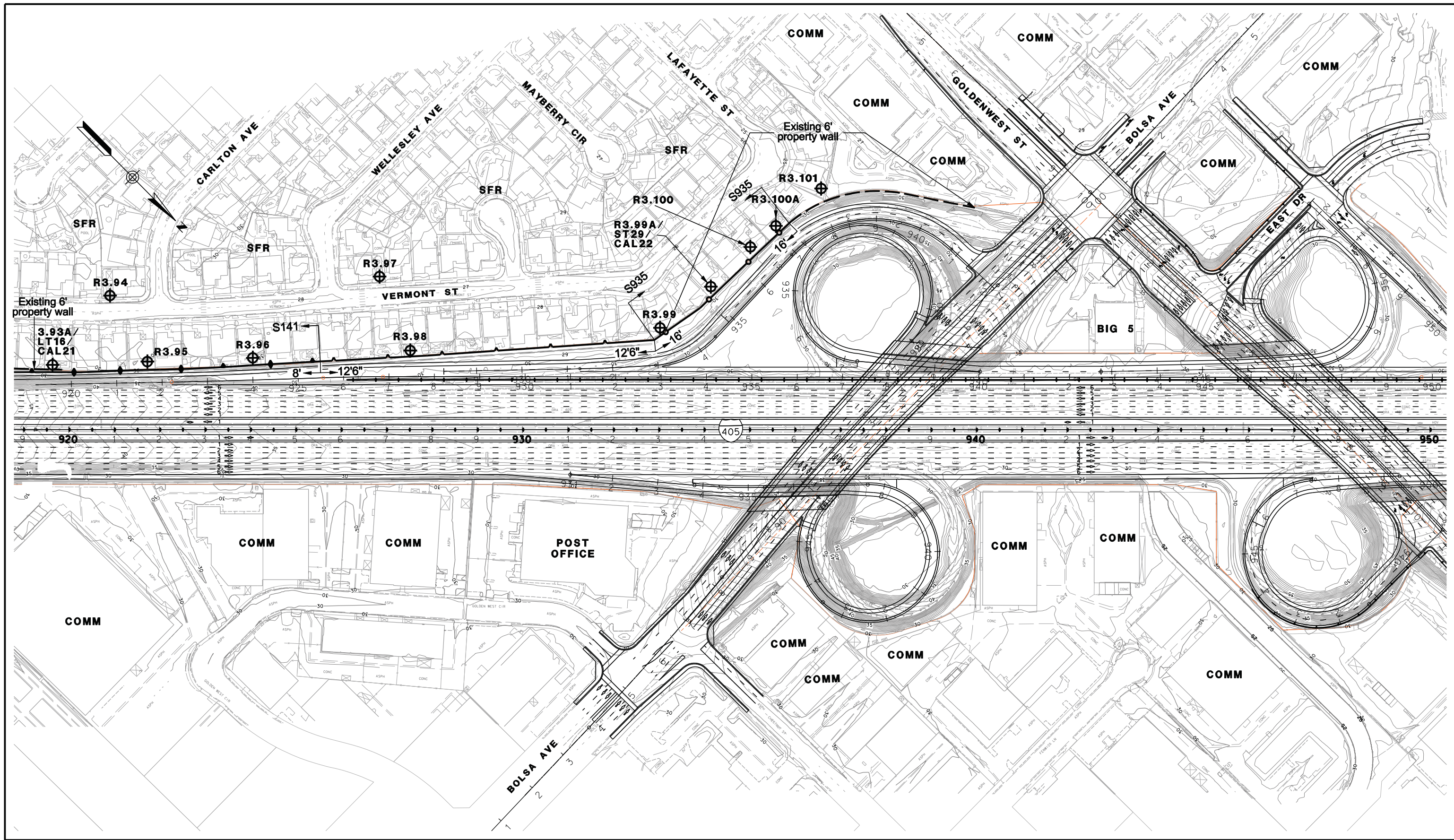
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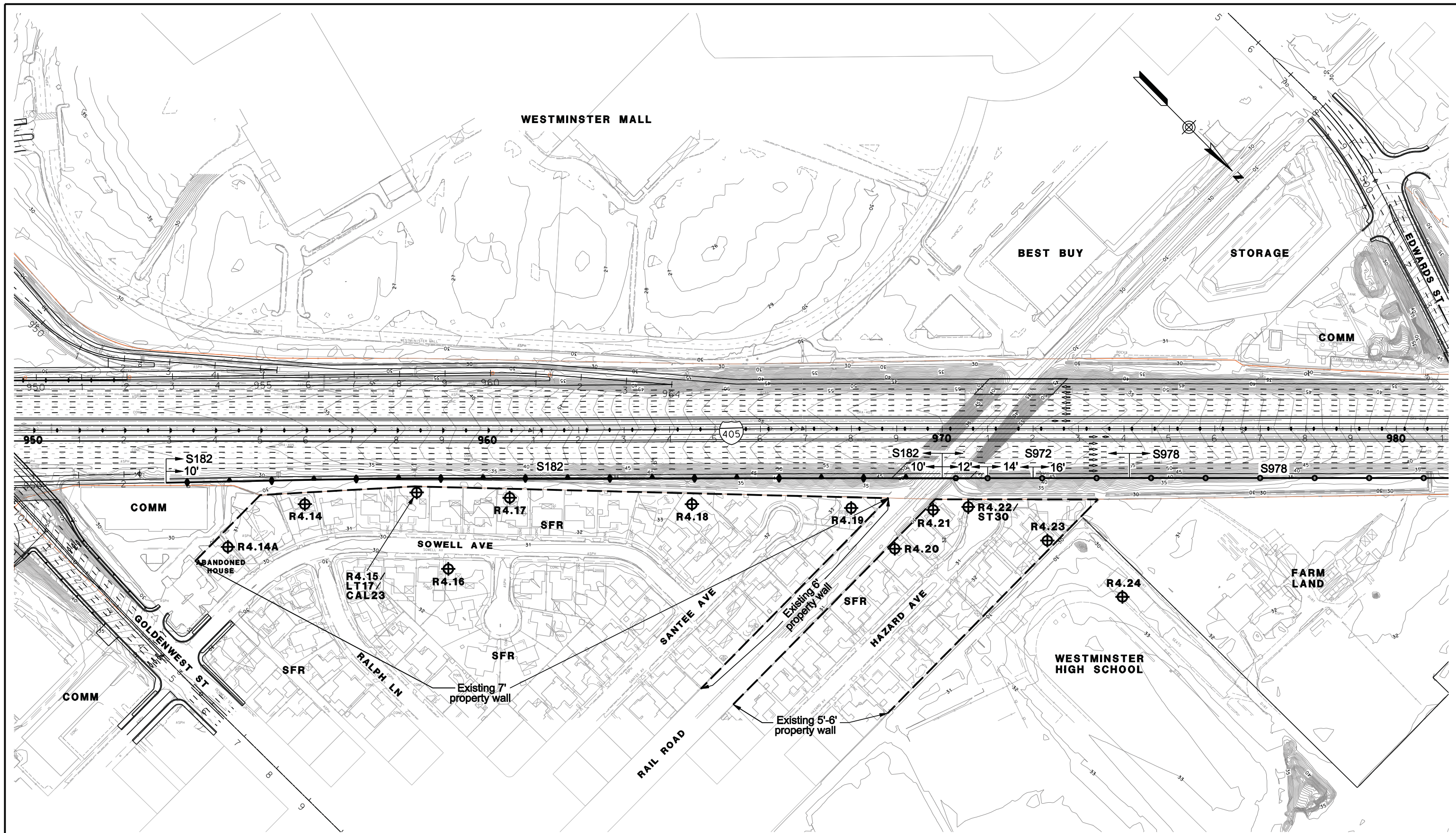
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HEIGHTS & LOCATIONS ALT2**

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FIGURE 14



LEGEND ⊕ RXX - RECEIVER SITE ⊕ LT - LONGTERM MEASUREMENT ⊕ ST - SHORTTERM MEASUREMENT ⊕ CAL - CALIBRATION SITE	--- EXISTING WALL --- SOUNDWALL --- EXISTING SOUNDWALL --- REPLACEMENT IN KIND SOUNDWALL	SFR - SINGLE FAMILY RESIDENCE MFR - MULTI-FAMILY RESIDENCE COMM - COMMERCIAL b - BENEFITED RESIDENCE	1in : 200ft 0 ft 100ft 200ft 300ft	PARSONS 100 WEST WALNUT ST. PASADENA, CA 91124 (626) 440-6100	I-405 WIDENING PA/ED PROJECT NADR RECOMMENDED BARRIER HEIGHTS & LOCATIONS ALT2 FEBRUARY 25, 2011 FIGURE 15
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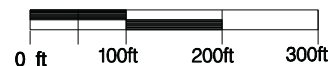
LEGEND

- ⊕ RXX - RECEIVER SITE
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- ⊕ ST - SHORTTERM MEASUREMENT
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- COMM - COMMERCIAL
- b - BENEFITED RESIDENCE

1in : 200ft



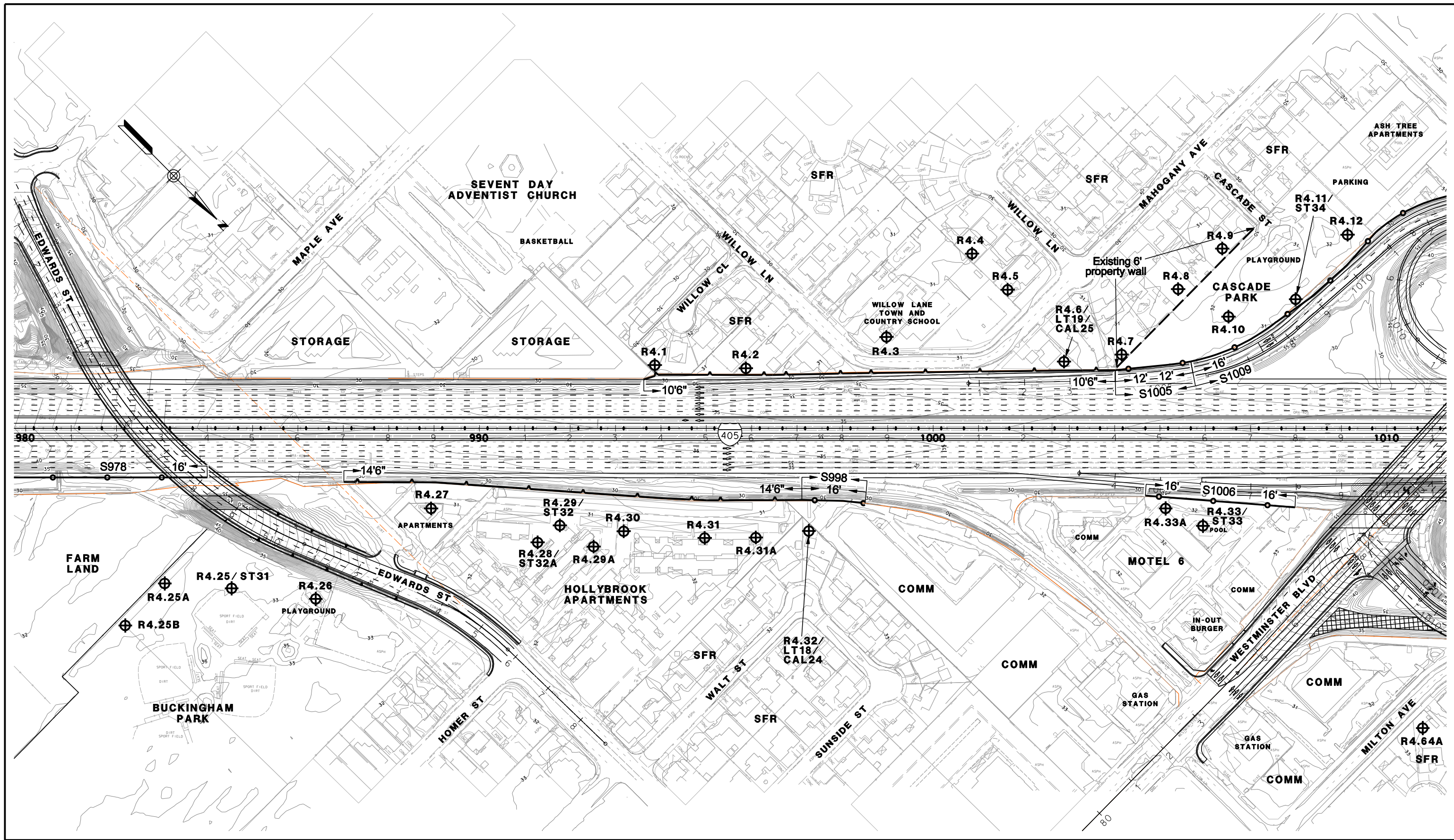
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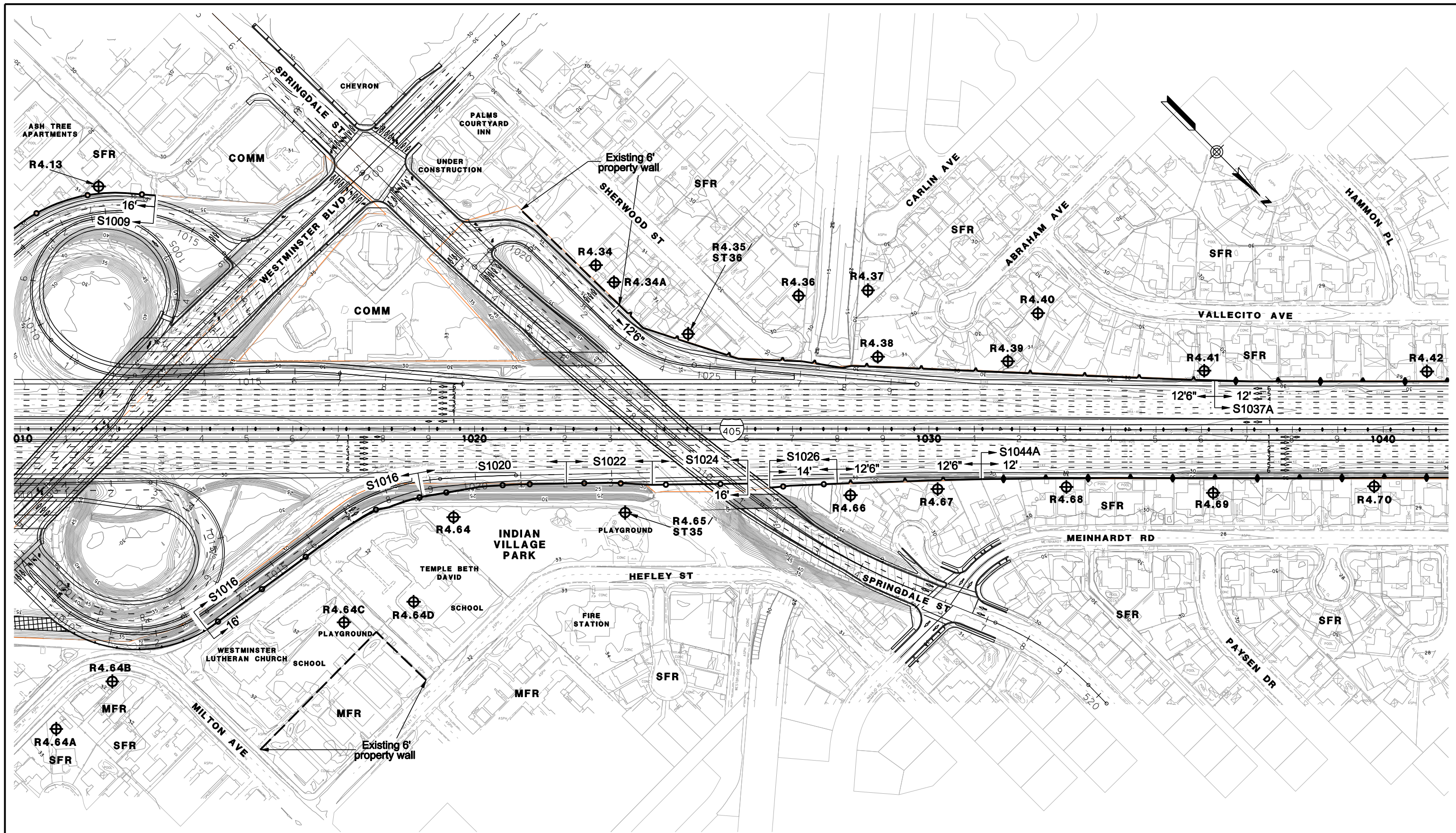
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FIGURE 16



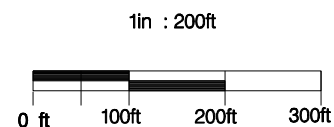


LEGEND

⊕ **RXX** - RECEIVER SITE
 ⊕ **LT** - LONGTERM MEASUREMENT
 ⊕ **ST** - SHORTTERM MEASUREMENT
 ⊕ **CAL** - CALIBRATION SITE

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 --- EXISTING SOUNDWALL
 --- REPLACEMENT IN KIND SOUNDWALL

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COMM - COMMERCIAL

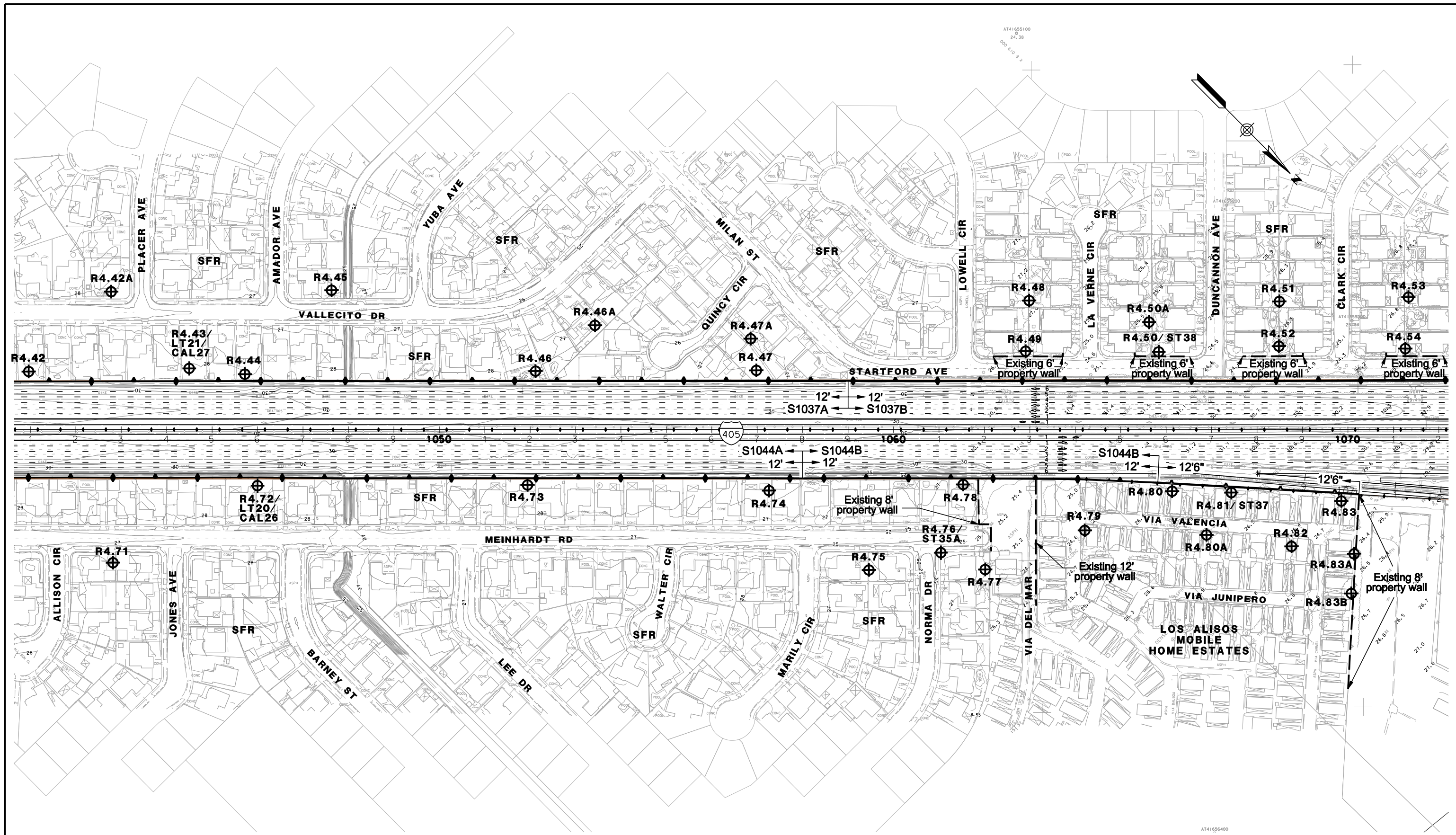


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FIGURE 18



LEGEND

- ⊕ **RXX** - RECEIVER SITE
- ⊕ **LT** - LONGTERM MEASUREMENT
- ⊕ **ST** - SHORTTERM MEASUREMENT
- ⊕ **CAL** - CALIBRATION SITE

- EXISTING WALL
- SOUNDWALL
- ▲— EXISTING SOUNDWALL
- ◆— REPLACEMENT IN KIND SOUNDWALL

- SFR** - SINGLE FAMILY RESIDENCE
- MFR** - MULTI-FAMILY RESIDENCE
- COMM** - COMMERCIAL

1in : 200ft



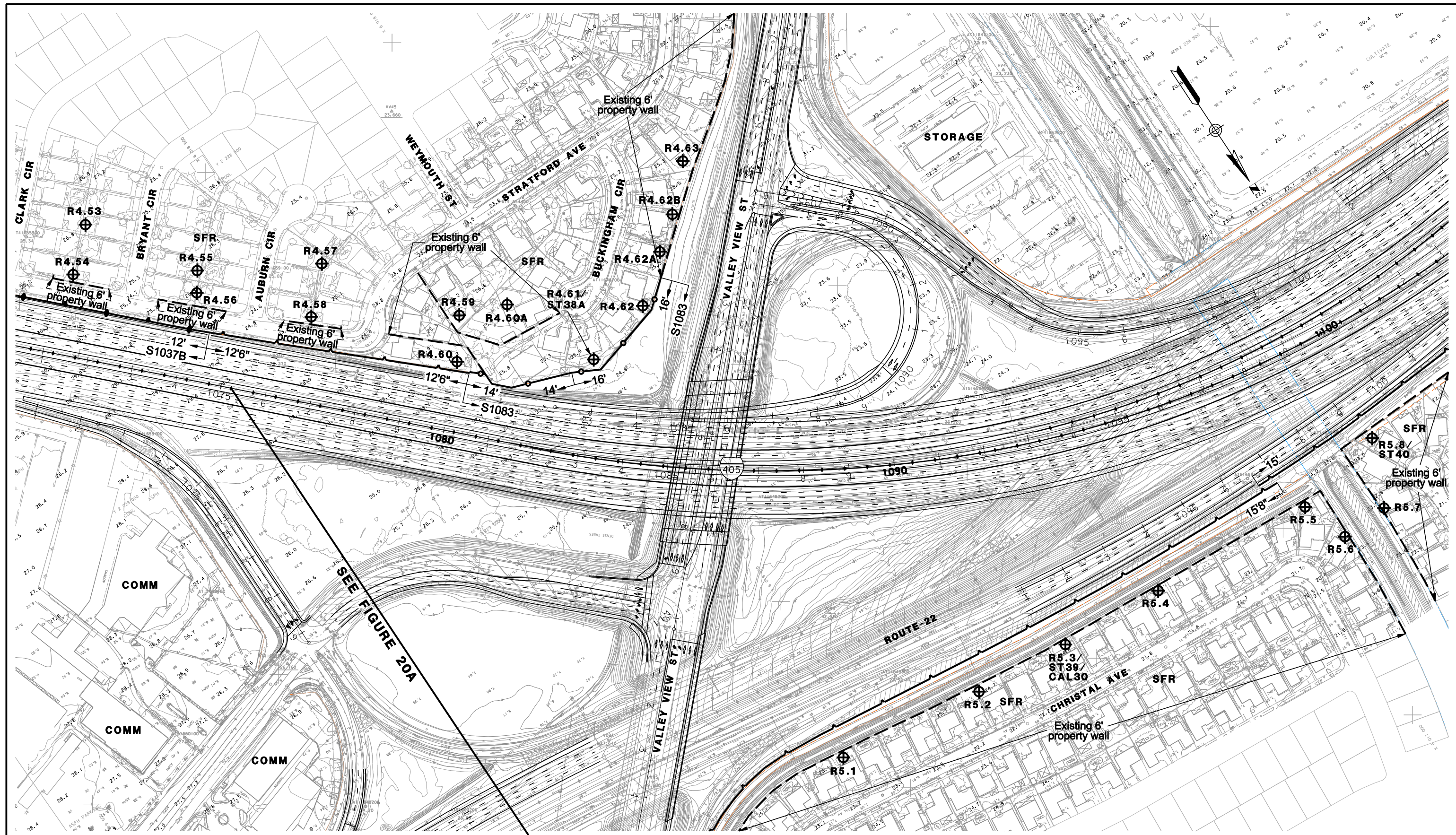
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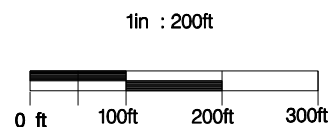
FIGURE 19



- LEGEND**
- ⊕RXX - RECEIVER SITE
 - ⊕LT - LONGTERM MEASUREMENT
 - ⊕ST - SHORTTERM MEASUREMENT
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FIGURE 20